

SEQUENCE LISTING

<110> Ruvkun, Gary  
Kimura, Koutarou  
Patterson, Garth  
Ogg, Scott  
Paradis, Suzanne  
Tissenbaum, Heidi  
Morris, Jason  
Kowek, Allison

<120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR  
IMPAIRED GLUCOSE TOLERANCE CONDITIONS

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<210> 14  
<211> 62  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 14  
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Thr Val Arg Tyr Leu Ala Pro Glu Ile Leu Asn Ser Thr Met Gln Phe  
20 25 30  
Thr Val Phe Glu Ser Tyr Gln Cys Ala Asp Val Tyr Ser Phe Ser Leu  
35 40 45  
Val Met Trp Glu Thr Leu Cys Arg Cys Glu Asp Gly Asp Val  
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<210> 15  
<211> 31  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 15  
Lys Pro Ala Met Ala His Arg Asp Ile Lys Ser Lys Asn Ile Met Val

1 5 10 15  
Lys Asn Asp Leu Thr Cys Ala Ile Gly Asp Leu Gly Leu Ser Leu  
20 25 30

<210> 16  
<211> 72  
<212> PRT  
<213> Caenorhabditis elegans

<400> 16  
Ile Pro Tyr Ile Glu Trp Thr Asp Arg Asp Pro Gln Asp Ala Gln Met  
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Phe Asp Val Val Cys Thr Arg Arg Leu Arg Pro Thr Glu Asn Pro Leu  
20 25 30  
Trp Lys Asp His Pro Glu Met Lys His Ile Met Glu Ile Ile Lys Thr  
35 40 45  
Cys Trp Asn Gly Asn Pro Ser Ala Arg Phe Thr Ser Tyr Ile Cys Arg  
50 55 60  
Lys Arg Met Asp Glu Arg Gln Gln  
65 70

<210> 17  
<211> 150  
<212> PRT  
<213> Caenorhabditis elegans

<400> 17  
Tyr Phe Glu Ser Val Asp Arg Phe Leu Tyr Ser Cys Val Gly Tyr Ser  
1 5 10 15  
Val Ala Thr Tyr Ile Met Gly Ile Lys Asp Arg His Ser Asp Asn Leu  
20 25 30  
Met Leu Thr Glu Asp Gly Lys Tyr Val His Ile Asp Phe Gly His Ile  
35 40 45  
Leu Gly His Gly Lys Thr Lys Leu Gly Ile Gln Arg Asp Arg Gln Pro  
50 55 60  
Phe Ile Leu Thr Glu His Phe Met Thr Val Ile Arg Ser Gly Lys Ser  
65 70 75 80  
Val Asp Gly Asn Ser His Glu Leu Gln Lys Phe Lys Thr Leu Cys Val  
85 90 95  
Glu Ala Tyr Glu Val Met Trp Asn Asn Arg Asp Leu Phe Val Ser Leu  
100 105 110  
Phe Thr Leu Met Leu Gly Met Glu Leu Pro Glu Leu Ser Thr Lys Ala  
115 120 125  
Asp Leu Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys  
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Glu Glu Ala Arg Lys Phe  
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<210> 18  
<211> 113  
<212> PRT  
<213> Caenorhabditis elegans

<400> 18  
Ser Pro Leu Asp Pro Val Tyr Lys Leu Gly Glu Met Ile Ile Asp Lys

1 5 10 15  
Ala Ile Val Leu Gly Ser Ala Lys Arg Pro Leu Met Leu His Trp Lys  
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Asn Lys Asn Pro Lys Ser Asp Leu His Leu Pro Phe Cys Ala Met Ile  
35 40 45  
Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Val Leu Gln Val  
50 55 60  
Leu Glu Val Met Asp Asn Ile Trp Lys Ala Ala Asn Ile Asp Cys Cys  
65 70 75 80  
Leu Asn Pro Tyr Ala Val Leu Pro Met Gly Glu Met Ile Gly Ile Ile  
85 90 95  
Glu Val Val Pro Asn Cys Lys Thr Ile Phe Glu Ile Gln Val Gly Thr  
100 105 110  
Gly

<210> 19  
<211> 106  
<212> PRT  
<213> Caenorhabditis elegans  
  
<400> 19  
Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr Val  
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Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Leu Thr Leu  
20 25 30  
Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val Glu  
35 40 45  
Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile Leu  
50 55 60  
Pro Leu Ile Gln Ala Leu Lys Tyr Glu Pro Arg Ala Gln Ser Glu Val  
65 70 75 80  
Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly His  
85 90 95  
Arg Leu Phe Trp Leu Leu Arg Ala Glu Ile  
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<210> 20  
<211> 139  
<212> PRT  
<213> Caenorhabditis elegans  
  
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Leu Leu Lys Asn Asn Val Ile Ser Ile Thr Ser Ala Asn Arg Ile Ile  
20 25 30  
Met Ser Met Ile Asp Gly Leu Gln Phe Leu His Asp Asp Arg Pro Tyr  
35 40 45  
Phe Phe Gly His Pro Lys Lys Pro Ile Ile His Arg Asp Ile Lys Ser  
50 55 60  
Lys Asn Ile Leu Val Lys Ser Asp Met Thr Thr Cys Ile Ala Asp Phe  
65 70 75 80  
Gly Leu Ala Arg Ile Tyr Ser Tyr Asp Ile Glu Gln Ser Asp Leu Leu  
85 90 95  
Gly Gln Val Gly Thr Lys Arg Tyr Met Ser Pro Glu Met Leu Glu Gly

100		105		110											
Ala	Thr	Glu	Phe	Thr	Pro	Thr	Ala	Phe	Lys	Ala	Met	Asp	Val	Tyr	Ser
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								120							
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<210> 21  
<211> 61  
<212> PRT  
<213> *Caenorhabditis elegans*

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<400> 21
Ile Gly Phe Asp Pro Thr Ile Gly Arg Met Arg Asn Tyr Val Val Ser
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Lys Lys Glu Arg Pro Gln Trp Arg Asp Glu Ile Ile Lys His Glu Tyr
   20         25         30
Met Ser Leu Leu Lys Lys Val Thr Glu Glu Met Trp Asp Pro Glu Ala
   35         40         45
Cys Ala Arg Ile Thr Ala Gly Cys Ala Phe Ala Arg Val
   50         55         60

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<210> 22  
<211> 20  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 22  
Pro Ile Thr Asp Phe Gln Leu Ile Ser Lys Gly Arg Phe Gly Lys Val  
1 5 10 15  
Phe Lys Ala Gln  
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<210> 23  
<211> 163  
<212> PRT  
<213> *Caenorhabditis elegans*

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<400> 23
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Pro Asn Arg Ser Pro Gln Thr Ala Glu Val Arg Gly Leu Ile Gly Lys
      20          25          30
Gly Val Arg Phe Tyr Leu Leu Ala Gly Glu Val Tyr Val Glu Asn Leu
      35          40          45
Cys Asn Ile Pro Val Phe Val Gln Ser Ile Gly Ala Asn Met Lys Asn
      50          55          60
Gly Phe Gln Leu Asn Thr Val Ser Lys Leu Pro Pro Thr Gly Thr Met
      65          70          75          80
Lys Val Phe Asp Met Arg Leu Phe Ser Lys Gln Leu Arg Thr Ala Ala
      85          90          95
Glu Lys Thr Tyr Gln Asp Val Tyr Cys Leu Ser Arg Met Cys Thr Val
      100         105         110
Arg Val Ser Phe Cys Lys Gly Trp Gly Glu His Tyr Arg Arg Ser Thr
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Val Leu Arg Ser Pro Val Trp Phe Gln Ala His Leu Asn Asn Pro Met

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F O R E I N G S C E N T R A L

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His Trp Val Asp Ser Val Leu Thr Cys Met Gly Ala Pro Pro Arg Ile  
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Cys Ser Ser

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<212> PRT  
<213> *Caenorhabditis elegans*

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20                    25                    30  
Leu Asn Pro Tyr His Tyr Arg Trp Val Glu Leu Pro  
35                    40

<210> 25  
<211> 38  
<212> PRT  
<213> *Caenorhabditis elegans*

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Val Glu Tyr Glu Glu Ser Pro Ser Trp Leu Lys Leu Ile Tyr Tyr Glu  
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Leu Ile Asp Gly Phe Thr  
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<210> 26  
<211> 60  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 26  
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Val Ser Asn Pro Glu Ile Gly Tyr Cys Cys His Pro Thr Glu Tyr Asp  
20                    25                    30  
Tyr Ile Lys Leu Ile Tyr Val Asn Arg Asp Gly Arg Val Ser Ile Ala  
35                    40                    45  
Asn Val Asn Gly Met Ile Ala Lys Lys Cys Gly Cys  
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<210> 27  
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<212> PRT  
<213> *Caenorhabditis elegans*

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<211> 43  
<212> PRT  
<213> *Caenorhabditis elegans*  
  
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Arg Tyr Asn Ala Tyr Met Cys Arg Gly Asp Cys  
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<210> 29  
<211> 70  
<212> PRT  
<213> *Caenorhabditis elegans*  
  
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Ser Lys Ile Met Arg Ala Ala His Lys Val Ser Asn Pro Glu Ile Gly  
20 25 30  
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35 40 45  
Asn Arg Asp Gly Arg Val Ser Ile Ala Asn Val Asn Gly Met Ile Ala  
50 55 60  
Lys Lys Cys Gly Cys Ser  
65 70

<210> 30  
<211> 35  
<212> PRT  
<213> *Caenorhabditis elegans*  
  
<400> 30  
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20 25 30  
Cys His Tyr  
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<210> 31  
<211> 23  
<212> DNA  
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<223> Degenerate probe

EQUATION EQUATION EQUATION

<221> misc\_feature  
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23

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18

<210> 33  
<211> 127  
<212> PRT  
<213> Caenorhabditis elegans

<400> 33  
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Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala Arg  
35 40 45  
Asp Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met Met  
50 55 60  
Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe Asp  
65 70 75 80  
Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met Val  
85 90 95  
Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val Leu  
100 105 110  
Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys  
115 120 125

<210> 34  
<211> 131  
<212> PRT  
<213> Caenorhabditis elegans

<400> 34  
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35 40 45

Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys Asp  
50 55 60  
Ala His Leu Tyr Leu Leu Gln Arg Arg Cys Val Thr Arg Glu Gln  
65 70 75 80  
Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro Ile Lys  
85 90 95  
Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr Gln Ile  
100 105 110  
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Ile Val Cys  
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<210> 35  
<211> 103  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 35  
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Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu  
35 40 45  
Gln Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu  
50 55 60  
Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His  
65 70 75 80  
Cys Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro  
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<211> 79  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 36  
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Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val  
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Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys  
50 55 60  
Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe  
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<210> 37  
<211> 106  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 37

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							20			25			30		
Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln	Asn	Val	Pro	Tyr	Phe	Arg
							35			40			45		
Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg
							50			55			60		
His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly
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Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly
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<210> 38  
<211> 60  
<212> PRT  
<213> Caenorhabditis elegans

<400> 38

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							20			25			30		
Arg	Gln	Leu	Asn	Asn	Phe	Gly	Glu	Ile	Glu	Val	Ile	Phe	Asn	Asp	Asp
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<210> 39  
<211> 2784  
<212> DNA  
<213> Caenorhabditis elegans

<400> 39

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<210> 40

<211> 796

<212> PRT

<213> *Caenorhabditis elegans*

<400> 40

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					20				25					30	
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
					35			40				45			
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
					50			55			60				
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
					65			70			75			80	
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
					85			90					95		
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
					100			105					110		
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
					115			120				125			
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
					130			135			140				
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
					145			150			155			160	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
					165			170					175		
Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln

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180	185	190
Val His Gly Arg Lys .Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp		
195	200	205
Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys		
210	215	220
Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr		
225	230	235
His Tyr Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His		
245	250	255
Asp Asn Arg Asp Met Pro Pro His Gln Arg Tyr His Thr Pro Gly		
260	265	270
Arg Gln Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser		
275	280	285
Ile Arg Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro		
290	295	300
Gln Gln Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His		
305	310	315
Gln Ala Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro		
325	330	335
Gln Thr His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln		
340	345	350
Met Pro Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly		
355	360	365
Pro Ser Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His		
370	375	380
Tyr Asn Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro		
385	390	395
Asn Leu Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe		
405	410	415
Asn Gln Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser		
420	425	430
Gln Gln Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp		
435	440	445
Pro Pro Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp		
450	455	460
Val Phe Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu		
465	470	475
Gly Glu Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe		
485	490	495
Ile Glu Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro		
500	505	510
Arg Met Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala		
515	520	525
Pro Tyr His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser		
530	535	540
Val Thr Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys		
545	550	555
Trp Gly Thr Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys		
565	570	575
Lys Cys Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser		
580	585	590
Glu Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro		
595	600	605
Val Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser		
610	615	620
Tyr Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro		
625	630	635
Val Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys		

645	650	655
Lys Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe		
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Gly Phe Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys		
675	680	685
Gln Met Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr		
690	695	700
Ile Tyr Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg		
705	710	715
Thr Thr Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys		
725	730	735
Lys Gly Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys		
740	745	750
Pro Val Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp		
755	760	765
Ser Ile Cys Gln Tyr Ile Thr Asn Cys Phe Glu Pro Leu Gly Met Glu		
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Asp Phe Ala Lys Leu Gly Ile Asn Val Ser Asp Asp		
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<211> 858  
<212> PRT  
<213> Caenorhabditis elegans

<400> 41

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Tyr Gly Gly Lys Pro Ser His Gly Leu Glu Asp Ile Pro Asp Val Glu		
35	40	45
Glu Tyr Glu Arg Asn Leu Leu Gly Ala Gly Ala Phe Asn Leu Leu		
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Asn Val Gly Asn Met Ala Asn Val Pro Asp Glu His Thr Pro Met Met		
65	70	75
Ser Pro Val Asn Thr Thr Lys Ile Leu Gln Arg Ser Gly Ile Lys		
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Met Glu Ile Pro Pro Tyr Leu Asp Pro Asp Ser Gln Asp Asp Asp Pro		
100	105	110
Glu Asp Gly Val Asn Tyr Pro Asp Pro Asp Leu Phe Asp Thr Lys Asn		
115	120	125
Thr Asn Met Thr Glu Tyr Asp Leu Asp Val Leu Lys Leu Gly Lys Pro		
130	135	140
Ala Val Asp Glu Ala Arg Lys Lys Ile Glu Val Pro Asp Ala Ser Ala		
145	150	155
Pro Pro Asn Lys Ile Val Glu Tyr Leu Met Tyr Tyr Arg Thr Leu Lys		
165	170	175
Glu Ser Glu Leu Ile Gln Leu Asn Ala Tyr Arg Thr Lys Arg Asn Arg		
180	185	190
Leu Ser Leu Asn Leu Val Lys Asn Asn Ile Asp Arg Glu Phe Asp Gln		
195	200	205
Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys Lys Asn Asp		
210	215	220
Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr Lys Tyr Thr		
225	230	235
Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu Gln Val His		

ପ୍ରକାଶକ ପରିଷଦ୍ୟ ମହାନ୍ତିର ପରିଷଦ୍ୟ

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Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp Arg Phe			
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Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys Lys His			
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Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr His Tyr			
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Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His Asp Asn			
305	310	315	320
Arg Asp Met Pro Pro His Gln Arg Tyr His Thr Pro Gly Arg Gln			
325	330	335	
Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser Ile Arg			
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Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro Gln Gln			
355	360	365	
Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His Gln Ala			
370	375	380	
Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro Gln Thr			
385	390	395	400
His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln Met Pro			
405	410	415	
Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly Pro Ser			
420	425	430	
Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His Tyr Asn			
435	440	445	
Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro Asn Leu			
450	455	460	
Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe Asn Gln			
465	470	475	480
Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser Gln Gln			
485	490	495	
Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp Pro Pro			
500	505	510	
Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp Val Phe			
515	520	525	
Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu Gly Glu			
530	535	540	
Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe Ile Glu			
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Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro Arg Met			
565	570	575	
Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala Pro Tyr			
580	585	590	
His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser Val Thr			
595	600	605	
Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys Trp Gly			
610	615	620	
Thr Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys Lys Cys			
625	630	635	640
Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser Glu Asn			
645	650	655	
Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val Ala			
660	665	670	
Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr Lys			
675	680	685	
Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val Phe			
690	695	700	
Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys Asp			

705	710	715	720
Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe Gly Phe			
725	730	735	
Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys Gln Met			
740	745	750	
Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr Ile Tyr			
755	760	765	
Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg Thr Thr			
770	775	780	
Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly			
785	790	795	800
Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys Pro Val			
805	810	815	
Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp Ser Ile			
820	825	830	
Cys Gln Tyr Ile Thr Asn Cys Phe Glu Pro Leu Gly Met Glu Asp Phe			
835	840	845	
Ala Lys Leu Gly Ile Asn Val Ser Asp Asp			
850	855		

<210> 42

<211> 892

<212> PRT

<213> Caenorhabditis elegans

<400> 42

Met Gly Asp His His Asn Leu Thr Gly Leu Pro Gly Thr Ser Ile Pro			
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20	25	30	
Tyr Gly Gly Lys Pro Ser His Gly Leu Glu Asp Ile Pro Asp Val Glu			
35	40	45	
Glu Tyr Glu Arg Asn Leu Leu Gly Ala Gly Ala Gly Phe Asn Leu Leu			
50	55	60	
Asn Val Gly Asn Met Ala Asn Glu Phe Lys Pro Ile Ile Thr Leu Asp			
65	70	75	80
Thr Lys Pro Pro Arg Asp Ala Asn Lys Ser Leu Ala Phe Asn Gly Gly			
85	90	95	
Leu Lys Leu Ile Thr Pro Lys Thr Glu Val Pro Asp Glu His Thr Pro			
100	105	110	
Met Met Ser Pro Val Asn Thr Thr Lys Ile Leu Gln Arg Ser Gly			
115	120	125	
Ile Lys Met Glu Ile Pro Pro Tyr Leu Asp Pro Asp Ser Gln Asp Asp			
130	135	140	
Asp Pro Glu Asp Gly Val Asn Tyr Pro Asp Pro Asp Leu Phe Asp Thr			
145	150	155	160
Lys Asn Thr Asn Met Thr Glu Tyr Asp Leu Asp Val Leu Lys Leu Gly			
165	170	175	
Lys Pro Ala Val Asp Glu Ala Arg Lys Lys Ile Glu Val Pro Asp Ala			
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Ser Ala Pro Pro Asn Lys Ile Val Glu Tyr Leu Met Tyr Tyr Arg Thr			
195	200	205	
Leu Lys Glu Ser Glu Leu Ile Gln Leu Asn Ala Tyr Arg Thr Lys Arg			
210	215	220	
Asn Arg Leu Ser Leu Asn Leu Val Lys Asn Asn Ile Asp Arg Glu Phe			
225	230	235	240
Asp Gln Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys Lys			

D  
D  
F  
W  
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	245	250	255
Asn Asp Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr Lys	260	265	270
Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu Gln	275	280	285
Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp	290	295	300
Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys	305	310	315
Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr	325	330	335
His Tyr Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His	340	345	350
Asp Asn Arg Asp Met Pro Pro His Gln Arg Tyr His Thr Pro Gly	355	360	365
Arg Gln Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser	370	375	380
Ile Arg Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro	385	390	395
Gln Gln Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His	405	410	415
Gln Ala Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro	420	425	430
Gln Thr His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln	435	440	445
Met Pro Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly	450	455	460
Pro Ser Cys Ser Ser Glu Asn Asn Asn Pro Phe His Gln Asn His His	465	470	475
Tyr Asn Asp Ile Ser His Pro Asn His Tyr Ser Tyr Asp Cys Gly Pro	485	490	495
Asn Leu Tyr Gly Phe Pro Thr Pro Tyr Pro Asp Phe His His Pro Phe	500	505	510
Asn Gln Gln Pro His Gln Pro Pro Gln Leu Ser Gln Asn His Thr Ser	515	520	525
Gln Gln Gly Ser His Gln Pro Gly His Gln Gly Gln Val Pro Asn Asp	530	535	540
Pro Pro Ile Ser Arg Pro Val Leu Gln Pro Ser Thr Val Thr Leu Asp	545	550	555
Val Phe Arg Arg Tyr Cys Arg Gln Thr Phe Gly Asn Arg Phe Phe Glu	565	570	575
Gly Glu Ser Glu Gln Ser Gly Ala Ile Ile Arg Ser Ser Asn Lys Phe	580	585	590
Ile Glu Glu Phe Asp Ser Pro Ile Cys Gly Val Thr Val Val Arg Pro	595	600	605
Arg Met Thr Asp Gly Glu Val Leu Glu Asn Ile Met Pro Glu Asp Ala	610	615	620
Pro Tyr His Asp Ile Cys Lys Phe Ile Leu Arg Leu Thr Ser Glu Ser	625	630	635
Val Thr Phe Ser Gly Glu Gly Pro Glu Val Ser Asp Leu Asn Glu Lys	645	650	655
Trp Gly Thr Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys	660	665	670
Lys Cys Ser Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser	675	680	685
Glu Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro	690	695	700
Val Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser			

705	710	715	720
Tyr Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro			
725	730	735	
Val Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys			
740	745	750	
Lys Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe			
755	760	765	
Gly Phe Asn Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys			
770	775	780	
Gln Met Ala Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr			
785	790	795	800
Ile Tyr Glu Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg			
805	810	815	
Thr Thr Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys			
820	825	830	
Lys Gly Phe Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys			
835	840	845	
Pro Val Trp Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp			
850	855	860	
Ser Ile Cys Gln Tyr Ile Thr Asn Cys Phe Glu Pro Leu Gly Met Glu			
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<210> 43

<211> 3499

<212> DNA

<213> Caenorhabditis elegans

<400> 43

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<212> DNA

<213> Caer

#### REFERENCES AND NOTES

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<211> 510

<212> PRT

<213> Caenorhabditis elegans

<400> 45

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Arg	Asp	Arg	Cys	Asn	Thr	Trp	Pro	Met	Arg	Arg	Pro	Gln	Leu	Glu	Pro
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Pro	Leu	Asn	Ser	Ser	Pro	Ile	Ile	His	Glu	Gln	Ile	Pro	Glu	Glu	Asp
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Ala	Asp	Leu	Tyr	Gly	Ser	Asn	Glu	Gln	Cys	Gly	Gln	Leu	Gly	Gly	Ala
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Ser	His	Gln	Thr	Ser	Phe	Pro	Ser	Asp	Phe	Arg	Met	Ser	Glu	Ser	Pro
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Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln
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Asn	Val	Pro	Tyr	Phe	Arg	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly
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Leu	Glu	Phe	Pro	Ser	Trp	Val	Gly	Glu	Ser	Val	Pro	Ala	Ile	Pro	Ser
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Asp	Gln	Pro	Leu	Met	Asp	Thr	Met	Asp	Val	Asp	Ala	Leu	Ile	Arg	His
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<213> *Caenorhabditis elegans*

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   35          40          45
Met Thr Thr Leu Thr Ser Ser Gly Ser Ser Val Ala Ser Ser Ile Gly
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Gly Gly Ala Gln Cys Ser Pro Cys Ala Ser Gly Ser Ser Thr Ala Ala
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 Lys Lys Pro Thr Asp Gln Leu Ala Gln Lys Lys Pro Asn Pro Trp Gly  
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 Asp Gly Arg Leu Lys Leu Asn Glu Ile Tyr Gln Trp Phe Ser Asp Asn  
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<212> DNA

<213> *Caenorhabditis elegans*

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Trp Phe Leu Ala Asn Val Arg Thr Ser Leu Glu Ile Lys Leu Ser Asp	
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Tyr Ser Val Lys Pro Gln Asp Tyr Val Phe Arg Gln Leu Asn Asn Phe	
115 120 125	
Gly Glu Ile Glu Val Ile Phe Asn Asp Asp Gln Pro Leu Ser Lys Leu	
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Glu Leu His Gly Thr Phe Pro Met Leu Phe Leu Tyr Gln Pro Asp Gly	
145 150 155 160	
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Tyr Ser Leu Asp Lys Leu Glu Glu Ser Leu Asp Glu Glu Leu Arg Gln	
180 185 190	
Phe Arg Ala Ser Leu Trp Ala Arg Thr Lys Lys Thr Cys Leu Thr Arg	
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Gly Leu Glu Gly Thr Ser His Tyr Ala Phe Pro Glu Glu Gln Tyr Leu	
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Cys Val Gly Glu Ser Cys Pro Lys Asp Leu Glu Ser Lys Val Lys Ala	
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Ala Lys Leu Ser Tyr Gln Met Phe Trp Arg Lys Arg Lys Ala Glu Ile	
245 250 255	
Asn Gly Val Cys Glu Lys Met Met Lys Ile Gln Ile Glu Phe Asn Pro	
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Asn Glu Thr Pro Lys Ser Leu Leu His Thr Phe Leu Tyr Glu Met Arg	
275 280 285	
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290 295 300	
Leu Gln Leu Ala Gly Arg Thr Thr Phe Val Thr Asn Pro Asp Val Lys	
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Leu Thr Ser Tyr Asp Gly Val Arg Ser Glu Leu Glu Ser Tyr Arg Cys	
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Pro Gly Phe Val Val Arg Arg Gln Ser Leu Val Leu Lys Asp Tyr Cys	
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Arg Pro Lys Pro Leu Tyr Glu Pro His Tyr Val Arg Ala His Glu Arg	
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 385 390 395 400  
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 405 410 415  
 Arg Pro Val Asn Ile Ser Gly Phe Asp Phe Pro Ala Asp Val Asp Met  
 420 425 430  
 Tyr Val Arg Ile Glu Phe Ser Val Tyr Val Gly Thr Leu Thr Leu Ala  
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 450 455 460  
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 465 470 475 480  
 Val Leu Ser Ile Arg Val Leu Tyr Gly Lys Val Lys Leu Lys Ser Glu  
 485 490 495  
 Glu Phe Glu Val Gly Trp Val Asn Met Ser Leu Thr Asp Trp Arg Asp  
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 515 520 525  
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 530 535 540  
 Asn Ala Ala Val Thr Ile Glu Ile Ser Ser Tyr Gly Gly Arg Val Arg  
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 Met Pro Ser Gln Gly Gln Tyr Thr Tyr Leu Val Lys His Arg Ser Thr  
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 580 585 590  
 Arg Asp Pro Gly Tyr Lys Lys Leu Gln Met Leu Val Lys Lys His Glu  
 595 600 605  
 Ser Gly Ile Val Leu Glu Glu Asp Glu Gln Arg His Val Trp Met Trp  
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 625 630 635 640  
 Glu Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr  
 645 650 655  
 Val Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Leu Thr  
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 Leu Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val  
 675 680 685  
 Glu Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile  
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 Val Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly  
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 Cys Asp Leu Lys Ser Glu Glu Tyr Arg Arg Ile Ser Leu Leu Met Glu  
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 Ala Tyr Leu Arg Gly Asn Glu Glu His Ile Lys Ile Ile Thr Arg Gln  
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 785 790 795 800  
 Met Pro Lys Asp Val Ala Thr Met Lys Leu Arg Asp Glu Leu Arg Ser  
 805 810 815  
 Ile Ser His Lys Met Glu Asn Met Asp Ser Pro Leu Asp Pro Val Tyr  
 820 825 830

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Lys Leu Gly Glu Met Ile Ile Asp Lys Ala Ile Val Leu Gly Ser Ala  
835 840 845  
Lys Arg Pro Leu Met Leu His Trp Lys Asn Lys Asn Pro Lys Ser Asp  
850 855 860  
Leu His Leu Pro Phe Cys Ala Met Ile Phe Lys Asn Gly Asp Asp Leu  
865 870 875 880  
Arg Gln Asp Met Leu Val Leu Gln Val Leu Glu Val Met Asp Asn Ile  
885 890 895  
Trp Lys Ala Ala Asn Ile Asp Cys Cys Leu Asn Pro Tyr Ala Val Leu  
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Pro Met Gly Glu Met Ile Gly Ile Ile Glu Val Val Pro Asn Cys Lys  
915 920 925  
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945 950 955 960  
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Pro Ile Glu Lys Lys Ile Asp Asn Thr Gln Ala Met Lys Lys Tyr Phe  
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Glu Ser Val Asp Arg Phe Leu Tyr Ser Cys Val Gly Tyr Ser Val Ala  
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23

<210> 50

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<213> Artificial Sequence

<220>

<223> Probe/primer derived from C. elegans

<400> 50

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20

<210> 51

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Probe/primer derived from C. elegans

<400> 51

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28

<210> 52

<211> 3017

<212> DNA

<213> Caenorhabditis elegans

<400> 52

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gtaccag	cac	cg	gaggcccc	ctt	tat	gggt	aaaac	ttc	180
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atgtagg	aaa	ta	ttgg	ctaat	tttccc	gacg	ac	atgtca	300
caactaca	aa	ttt	gggt	ttt	ccgg	ggat	cc	ccagt	360
cagacagt	ca	ggat	gtat	gtac	ccgg	aaat	cc	gtata	420
acaca	aaaa	aa	aaat	atg	tttgg	atgt	ttt	tttggat	480
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<210> 53

<211> 3119

<212> DNA

<213> *Caenorhabditis elegans*

<400> 53

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ctgatgtaga	ggaatatgag	aggaacctgc	tcggggctgg	agcagggttt	aatctgctca	240
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cgcatatgtc	atataatttca	ccgtggccct	ttttatttga	acttttaata	tatccc当地t	3060
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<210> 54

<211> 103

<212> PRT

<213> Caenorhabditis elegans

<400> 54

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Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser	Pro	Glu	Lys	Arg	Leu	Thr
							20		25			30			
Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln	Asn	Val	Pro	Tyr	Phe	Arg
							35		40			45			
Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg
							50		55			60			
His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly
							65		70			75			80
Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly
							85		90			95			
Met	Asn	Pro	Arg	Arg	Thr	Arg									
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<210> 55

<211> 41

<212> PRT

<213> Caenorhabditis elegans

<400> 55

Thr	Phe	Met	Asn	Thr	Pro	Asp	Asp	Val	Met	Met	Asn	Asp	Asp	Met	Glu
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Pro	Ile	Pro	Arg	Asp	Arg	Cys	Asn	Thr	Trp	Pro	Met	Arg	Arg	Pro	Gln
							20		25			30			
Leu	Glu	Pro	Pro	Leu	Asn	Ser	Ser	Pro							
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<210> 56

<211> 109

<212> PRT

<213> Caenorhabditis elegans

<400> 56

Asp	Asp	Thr	Val	Ser	Gly	Lys	Lys	Thr	Thr	Arg	Arg	Asn	Ala	Trp	
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Gly	Asn	Met	Ser	Tyr	Ala	Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser
					20			25					30		
Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln
					35			40				45			
Asn	Val	Pro	Tyr	Phe	Arg	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly
					50			55				60			
Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met
					65			70			75		80		
Arg	Ile	Gln	Asn	Glu	Gly	Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn
					85			90				95			
Pro	Asp	Ala	Lys	Pro	Gly	Met	Asn	Pro	Arg	Arg	Thr	Arg			
					100			105							

<210> 57

<211> 655

<212> PRT

<213> Homo sapiens

<400> 57

Met	Ala	Glu	Ala	Pro	Gln	Val	Val	Glu	Ile	Asp	Pro	Asp	Phe	Glu	Pro
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Leu	Pro	Arg	Pro	Arg	Ser	Cys	Thr	Trp	Pro	Leu	Pro	Arg	Pro	Glu	Phe
					20			25				30			
Ser	Gln	Ser	Asn	Ser	Ala	Thr	Ser	Ser	Pro	Ala	Pro	Ser	Gly	Ser	Ala
					35			40				45			
Ala	Ala	Asn	Pro	Asp	Ala	Ala	Gly	Leu	Pro	Ser	Ala	Ser	Ala	Ala	
					50			55			60				
Ala	Val	Ser	Ala	Asp	Phe	Met	Ser	Asn	Leu	Ser	Leu	Glu	Glu	Ser	
					65			70			75		80		
Glu	Asp	Phe	Pro	Gln	Ala	Pro	Gly	Ser	Val	Ala	Ala	Ala	Val	Ala	Ala
					85			90				95			
Ala	Ala	Ala	Ala	Ala	Thr	Gly	Gly	Leu	Cys	Gly	Asp	Phe	Gln	Gly	
					100			105			110				
Pro	Glu	Ala	Gly	Cys	Leu	His	Pro	Ala	Pro	Pro	Gln	Pro	Pro	Pro	Pro
					115			120			125				
Gly	Pro	Val	Ser	Gln	His	Pro	Pro	Val	Pro	Pro	Ala	Ala	Ala	Gly	Pro
					130			135			140				
Leu	Ala	Gly	Gln	Pro	Arg	Lys	Ser	Ser	Ser	Arg	Arg	Asn	Ala	Trp	
					145			150			155		160		
Gly	Asn	Leu	Ser	Tyr	Ala	Asp	Leu	Ile	Thr	Lys	Ala	Ile	Glu	Ser	Ser
					165			170				175			
Ala	Glu	Lys	Arg	Leu	Thr	Leu	Ser	Gln	Ile	Tyr	Glu	Trp	Met	Val	Lys
					180			185			190				
Ser	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly
					195			200			205				
Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe	Ile
					210			215			220				
Arg	Val	Gln	Asn	Glu	Gly	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu	Asn
					225			230			235		240		
Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ser	Pro	Arg	Arg	Arg	Ala	Ala	Ser
					245			250			255				

B  
D  
E  
F  
G  
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J  
K  
L  
M  
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V  
W  
X  
Y  
Z

Met Asp Asn Asn Ser Lys Phe Ala Lys Ser Arg Ser Arg Ala Ala Lys  
260 265 270  
Lys Lys Ala Ser Leu Gln Ser Gly Gln Glu Gly Ala Gly Asp Ser Pro  
275 280 285  
Gly Ser Gln Phe Ser Lys Trp Pro Ala Ser Pro Gly Ser His Ser Asn  
290 295 300  
Asp Asp Phe Asp Asn Trp Ser Thr Phe Arg Pro Arg Thr Ser Ser Asn  
305 310 315 320  
Ala Ser Thr Ile Ser Gly Arg Leu Ser Pro Ile Met Thr Glu Gln Asp  
325 330 335  
Asp Leu Gly Glu Gly Asp Val His Ser Met Val Tyr Pro Pro Ser Ala  
340 345 350  
Ala Lys Met Ala Ser Thr Leu Pro Ser Leu Ser Glu Ile Ser Asn Pro  
355 360 365  
Glu Asn Met Glu Asn Leu Leu Asp Asn Leu Asn Leu Leu Ser Ser Pro  
370 375 380  
Thr Ser Leu Thr Val Ser Thr Gln Ser Ser Pro Gly Thr Met Met Gln  
385 390 395 400  
Gln Thr Pro Cys Tyr Ser Phe Ala Pro Pro Asn Thr Ser Leu Asn Ser  
405 410 415  
Pro Ser Pro Asn Tyr Gln Lys Tyr Thr Tyr Gly Gln Ser Ser Met Ser  
420 425 430  
Pro Leu Pro Gln Met Pro Ile Gln Thr Leu Gln Asp Asn Lys Ser Ser  
435 440 445  
Tyr Gly Gly Met Ser Gln Tyr Asn Cys Ala Pro Gly Leu Leu Lys Glu  
450 455 460  
Leu Leu Thr Ser Asp Ser Pro Pro His Asn Asp Ile Met Thr Pro Val  
465 470 475 480  
Asp Pro Gly Val Ala Gln Pro Asn Ser Arg Val Leu Gly Gln Asn Val  
485 490 495  
Met Met Gly Pro Asn Ser Val Met Ser Thr Tyr Gly Ser Gln Ala Ser  
500 505 510  
His Asn Lys Met Met Asn Pro Ser Ser His Thr His Pro Gly His Ala  
515 520 525  
Gln Gln Thr Ser Ala Val Asn Gly Arg Pro Leu Pro His Thr Val Ser  
530 535 540  
Thr Met Pro His Thr Ser Gly Met Asn Arg Leu Thr Gln Val Lys Thr  
545 550 555 560  
Pro Val Gln Val Pro Leu Pro His Pro Met Gln Met Ser Ala Leu Gly  
565 570 575  
Gly Tyr Ser Ser Val Ser Ser Cys Asn Gly Tyr Gly Arg Met Gly Leu  
580 585 590  
Leu His Gln Glu Lys Leu Pro Ser Asp Leu Asp Gly Met Phe Ile Glu  
595 600 605  
Arg Leu Asp Cys Asp Met Glu Ser Ile Ile Arg Asn Asp Leu Met Asp  
610 615 620  
Gly Asp Thr Leu Asp Phe Asn Phe Asp Asn Val Leu Pro Asn Gln Ser  
625 630 635 640  
Phe Pro His Ser Val Lys Thr Thr His Ser Trp Val Ser Gly  
645 650 655

<210> 58  
<211> 98  
<212> PRT  
<213> Caenorhabditis elegans

<400> 58

Lys Pro Asn Pro Trp Gly Glu Glu Ser Tyr Ser Asp Ile Ile Ala Lys  
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Ala Leu Glu Ser Ala Pro Asp Gly Arg Leu Lys Leu Asn Glu Ile Tyr  
20 25 30  
Gln Trp Phe Ser Asp Asn Ile Pro Tyr Phe Gly Glu Arg Ser Ser Pro  
35 40 45  
Glu Glu Ala Ala Gly Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu  
50 55 60  
His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser  
65 70 75 80  
Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg  
85 90 95  
Thr Arg

<210> 59  
<211> 7  
<212> PRT  
<213> Caenorhabditis elegans

<400> 59  
Trp Lys Asn Ser Ile Arg His  
1 5

<210> 60  
<211> 121  
<212> PRT  
<213> Caenorhabditis elegans

<400> 60  
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20 25 30  
Ser Lys Asp His Asn Lys Leu Phe Glu Leu Ile Met Ala Gly Asp Leu  
35 40 45  
Arg Phe Pro Ser Lys Leu Ser Gln Glu Ala Arg Thr Leu Leu Thr Gly  
50 55 60  
Leu Leu Val Lys Asp Pro Thr Gln Arg Leu Gly Gly Pro Glu Asp  
65 70 75 80  
Ala Leu Glu Ile Cys Arg Ala Asp Phe Phe Arg Thr Val Asp Trp Glu  
85 90 95  
Ala Thr Tyr Arg Lys Glu Ile Glu Pro Pro Tyr Lys Pro Asn Val Gln  
100 105 110  
Ser Glu Thr Asp Thr Ser Tyr Phe Asp  
115 120

<210> 61  
<211> 66  
<212> PRT  
<213> Caenorhabditis elegans

<400> 61  
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Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala  
20 25 30  
Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala  
35 40 45  
His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe  
50 55 60  
Leu Thr  
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<210> 62  
<211> 45  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 62  
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1 5 10 15  
Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser  
20 25 30  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
35 40 45

<210> 63  
<211> 57  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 63  
Tyr Phe Gln Glu Leu Lys Tyr Ser Phe Gln Glu Gln His Tyr Leu Cys  
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Phe Val Met Gln Phe Ala Asn Gly Gly Glu Leu Phe Thr His Val Arg  
20 25 30  
Lys Cys Gly Thr Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ala Glu  
35 40 45  
Ile Val Leu Ala Leu Gly Tyr Leu His  
50 55

<210> 64  
<211> 59  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 64  
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Arg Pro Asn Met Phe Met Val Arg Cys Leu Gln Trp Thr Val Ile  
20 25 30  
Glu Arg Thr Phe Tyr Ala Glu Ser Ala Glu Val Arg Gln Arg Trp Ile  
35 40 45  
His Ala Ile Glu Ser Ile Ser Lys Lys Tyr Lys  
50 55

<210> 65  
<211> 33

THE GENOME PROJECT

<212> PRT

<213> *Caenorhabditis elegans*

<400> 65

Leu	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Thr	Asn	Asp	Arg	Leu	Cys	Phe
1				5				10					15		
Val	Met	Glu	Phe	Ala	Ile	Gly	Gly	Asp	Leu	Tyr	Tyr	His	Leu	Asn	Arg
			20					25				30			

Glu

<210> 66

<211> 21

<212> PRT

<213> *Caenorhabditis elegans*

<400> 66

Val	Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Gly	Glu	His	Ile	Arg	Asn
1				5				10				15		
Trp	Arg	Pro	Arg	Phe										
				20										

<210> 67

<211> 26

<212> PRT

<213> *Caenorhabditis elegans*

<400> 67

Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ser	Glu	Ile	Val	Leu	Ala
1				5				10				15			
Leu	Gly	Tyr	Leu	His	Ala	Asn	Ser	Ile	Val						
			20					25							

<210> 68

<211> 39

<212> PRT

<213> *Caenorhabditis elegans*

<400> 68

Ile	Arg	Val	Ser	Phe	Cys	Lys	Gly	Phe	Gly	Glu	Thr	Tyr	Ser	Arg	Leu
1				5				10				15			
Lys	Val	Val	Asn	Leu	Pro	Cys	Trp	Ile	Glu	Ile	Ile	Leu	His	Glu	Pro
				20				25				30			
Ala	Asp	Glu	Tyr	Asp	Thr	Val									
				35											

<210> 69

<211> 45

<212> PRT

<213> *Caenorhabditis elegans*

<400> 69

Ser	Arg	Asn	Ser	Lys	Ser	Ser	Gln	Ile	Arg	Asn	Thr	Val	Gly	Ala	Gly
1				5					10			15			

Ile Gln Leu Ala Tyr Glu Asn Gly Glu Leu Trp Leu Thr Val Leu Thr  
20 25 30  
Asp Gln Ile Val Phe Val Gln Cys Pro Phe Leu Asn Gln  
35 40 45

<210> 70  
<211> 29  
<212> PRT  
<213> Caenorhabditis elegans

<400> 70  
Asn Glu Met Leu Asp Pro Glu Pro Lys Tyr Pro Lys Glu Glu Lys Pro  
1 5 10 15  
Trp Cys Thr Ile Phe Tyr Tyr Glu Leu Thr Val Arg Val  
20 25

<210> 71  
<211> 29  
<212> PRT  
<213> Caenorhabditis elegans

<400> 71  
Gln Leu Gly Lys Ala Phe Glu Ala Lys Val Pro Thr Ile Thr Ile Asp  
1 5 10 15  
Gly Ala Thr Gly Ala Ser Asp Glu Cys Arg Met Ser Leu  
20 25

<210> 72  
<211> 105  
<212> PRT  
<213> Caenorhabditis elegans

<400> 72  
Ser Pro Asp Asp Gly Leu Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg  
1 5 10 15  
Gln Lys Thr Cys Arg Val Cys Gly Asp His Ala Thr Gly Tyr Asn Phe  
20 25 30  
Asn Val Ile Thr Cys Glu Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala  
35 40 45  
Leu Arg Pro Lys Glu Phe Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile  
50 55 60  
Asn Ser Val Ser Arg Arg Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys  
65 70 75 80  
Phe Thr Val Gly Met Lys Lys Glu Trp Ile Leu Asn Glu Glu Gln Leu  
85 90 95  
Arg Arg Arg Lys Asn Ser Arg Leu Asn  
100 105

<210> 73  
<211> 89  
<212> PRT  
<213> Caenorhabditis elegans

<400> 73

Leu Asp Ser Ser Glu Glu Ser Arg Arg Gln Lys Thr Cys Arg Val  
1 5 10 15  
Cys Gly Asp His Ala Thr Gly Tyr Asn Phe Asn Val Ile Thr Cys Glu  
20 25 30  
Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala Leu Arg Pro Lys Glu Phe  
35 40 45  
Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile Asn Ser Val Ser Arg Arg  
50 55 60  
Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys Phe Thr Val Gly Met Lys  
65 70 75 80  
Lys Glu Trp Ile Leu Asn Glu Glu Gln  
85

<210> 74  
<211> 73  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 74  
Asp Ile Met Asn Ile Met Asp Val Thr Met Arg Arg Phe Val Lys Val  
1 5 10 15  
Ala Lys Gly Val Pro Ala Phe Arg Glu Val Ser Gln Glu Gly Lys Phe  
20 25 30  
Ser Leu Leu Lys Gly Gly Met Ile Glu Met Leu Thr Val Arg Gly Val  
35 40 45  
Thr Arg Tyr Asp Ala Ser Thr Asn Ser Phe Lys Thr Pro Thr Ile Lys  
50 55 60  
Gly Gln Asn Val Ser Val Asn Val Asp  
65 70

<210> 75  
<211> 112  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 75  
Ser Gly Ser Leu Val Asp Leu Met Ile Lys Asn Leu Thr Ala Tyr Thr  
1 5 10 15  
Gln Gly Leu Asn Glu Thr Val Lys Asn Arg Thr Ala Glu'Leu Glu Lys  
20 25 30  
Glu Gln Glu Lys Gly Asp Gln Leu Leu Met Glu Leu Leu Pro Lys Ser  
35 40 45  
Val Ala Asn Asp Leu Lys Asn Gly Ile Ala Val Asp Pro Lys Val Tyr  
50 55 60  
Glu Asn Ala Thr Ile Leu Tyr Ser Asp Ile Val Gly Phe Thr Ser Leu  
65 70 75 80  
Cys Ser Gln Ser Gln Pro Met Glu Val Val Thr Leu Leu Ser Gly Met  
85 90 95  
Tyr Gln Arg Phe Asp Leu Ile Ile Ser Gln Gln Gly Gly Tyr Lys Val  
100 105 110

<210> 76  
<211> 107  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 76  
Met Glu Thr Ile Gly Asp Ala Tyr Cys Val Ala Ala Gly Leu Pro Val  
1 5 10 15  
Val Met Glu Lys Asp His Val Lys Ser Ile Cys Met Ile Ala Leu Leu  
20 25 30  
Gln Arg Asp Cys Leu His His Phe Glu Ile Pro His Arg Pro Gly Thr  
35 40 45  
Phe Leu Asn Cys Arg Trp Gly Phe Asn Ser Gly Pro Val Phe Ala Gly  
50 55 60  
Val Ile Gly Gln Lys Ala Pro Arg Tyr Ala Cys Phe Gly Glu Ala Val  
65 70 75 80  
Ile Leu Ala Ser Lys Met Glu Ser Ser Gly Val Glu Asp Arg Ile Gln  
85 90 95  
Met Thr Leu Ala Ser Gln Gln Leu Leu Glu Glu  
100 105

<210> 77  
<211> 43  
<212> PRT  
<213> Caenorhabditis elegans

<400> 77  
Asp Ile Leu Lys Gly Leu Glu Tyr Ile His Ala Ser Ala Ile Asp Phe  
1 5 10 15  
His Gly Asn Leu Thr Leu His Asn Cys Met Leu Asp Ser His Trp Ile  
20 25 30  
Val Lys Leu Ser Gly Phe Gly Val Asn Arg Leu  
35 40

<210> 78  
<211> 15  
<212> PRT  
<213> Caenorhabditis elegans

<400> 78  
Asp Met Tyr Ser Phe Gly Val Ile Leu His Glu Ile Ile Leu Lys  
1 5 10 15

<210> 79  
<211> 67  
<212> PRT  
<213> Caenorhabditis elegans

<400> 79  
Ala Ile Lys Ile Asn Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn  
1 5 10 15  
Tyr Leu Met Glu Ala Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile  
20 25 30  
Val Gln Leu Tyr Gly Val Ile Ser Thr Val Gln Pro Ala Met Val Val  
35 40 45  
Met Glu Met Met Asp Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys  
50 55 60  
Arg Glu Asp  
65

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<210> 80
<211> 54
<212> PRT
<213> Caenorhabditis elegans
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<400> 80
Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val Met
   1           5           10          15
Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu Gln
   20          25          30
Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp Leu
   35          40          45
Ser Phe Val Leu Thr Asp
   50

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<210> 81
<211> 69
<212> PRT
<213> Caenorhabditis elegans
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<400> 81
Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp Ile Phe Ala Asn
      5          10          15
Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln Ser Ser Pro Phe
      20          25          30
Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile Glu Ala Lys Ser
      35          40          45
Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu Asn Pro Asn Leu
      50          55          60
Lys Lys Leu Phe Asp
65

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<210> 82
<211> 52
<212> PRT
<213> Caenorhabditis elegans
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<400> 82
Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu Thr
      1       5          10          15
Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val Ile
      20        25          30
Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg Asn
      35        40          45
Pro Asp Leu Glu
      50

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<210> 83  
<211> 46  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 83  
Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn Gly Gly Val Arg  
1 5 10 15

Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr Ile Asp Trp Lys  
20 25 30  
His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val Asp Asn  
35 40 45

<210> 84  
<211> 36  
<212> PRT  
<213> Caenorhabditis elegans

<400> 84  
Tyr Asn Ala Asp Asp Trp Glu Leu Arg Gln Asp Asp Val Val Leu Gly  
1 5 10 15  
Gln Gln Cys Gly Glu Gly Ser Phe Gly Lys Val Tyr Leu Gly Thr Gly  
20 25 30  
Asn Asn Val Val  
35

<210> 85  
<211> 24  
<212> PRT  
<213> Caenorhabditis elegans

<400> 85  
Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly  
1 5 10 15  
Phe Gly Glu Ala Tyr Pro Glu Arg  
20

<210> 86  
<211> 13  
<212> PRT  
<213> Caenorhabditis elegans

<400> 86  
Gly Trp Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala  
1 5 10

<210> 87  
<211> 121  
<212> PRT  
<213> Homo sapiens

<400> 87  
Glu Val Leu Glu Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp Trp Gly  
1 5 10 15  
Leu Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr  
20 25 30  
Asn Gln Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu Glu Ile  
35 40 45  
Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser Leu Leu Ser Gly  
50 55 60  
Leu Leu Lys Lys Asp Pro Thr Gln Arg Leu Gly Gly Ser Glu Asp  
65 70 75 80

Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Asn Ile Val Trp Gln  
                   85                  90                  95  
 Asp Val Tyr Glu Lys Lys Leu Ser Pro Pro Phe Lys Pro Gln Val Thr  
                   100              105                  110  
 Ser Glu Thr Asp Thr Arg Tyr Phe Asp  
                   115                  120

<210> 88  
 <211> 121  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 88  
 Gln Val Leu Asp Asp His Asp Tyr Gly Arg Cys Val Asp Trp Trp Gly  
   1                  5                  10                  15  
 Val Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr  
   20                  25                  30  
 Ser Lys Asp His Asn Lys Leu Phe Glu Leu Ile Met Ala Gly Asp Leu  
   35                  40                  45  
 Arg Phe Pro Ser Lys Leu Ser Gln Glu Ala Arg Thr Leu Leu Thr Gly  
   50                  55                  60  
 Leu Leu Val Lys Asp Pro Thr Gln Arg Leu Gly Gly Pro Glu Asp  
   65                  70                  75                  80  
 Ala Leu Glu Ile Cys Arg Ala Asp Phe Phe Arg Thr Val Asp Trp Glu  
   85                  90                  95  
 Ala Thr Tyr Arg Lys Glu Ile Glu Pro Pro Tyr Lys Pro Asn Val Gln  
   100                105                  110  
 Ser Glu Thr Asp Thr Ser Tyr Phe Asp  
   115                  120

<210> 89  
 <211> 66  
 <212> PRT  
 <213> Homo sapiens

<400> 89  
 Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu Gly Lys Gly Thr Phe  
   1                  5                  10                  15  
 Gly Lys Val Ile Leu Val Lys Glu Lys Ala Thr Gly Arg Tyr Tyr Ala  
   20                  25                  30  
 Met Lys Ile Leu Lys Lys Glu Val Ile Val Ala Lys Asp Glu Val Ala  
   35                  40                  45  
 His Thr Leu Thr Glu Asn Arg Val Leu Gln Asn Ser Arg His Pro Phe  
   50                  55                  60  
 Leu Thr  
   65

<210> 90  
 <211> 66  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 90  
 Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe  
   1                  5                  10                  15

TOP SECRET EDITION

Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala  
20 25 30  
Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala  
35 40 45  
His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe  
50 55 60  
Leu Thr  
65

<210> 91  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 91  
Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
1 5 10 15  
Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys  
20 25 30  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
35 40 45

<210> 92  
<211> 45  
<212> PRT  
<213> Caenorhabditis elegans

<400> 92  
Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala  
1 5 10 15  
Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser  
20 25 30  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
35 40 45

<210> 93  
<211> 57  
<212> PRT  
<213> Homo sapiens

<400> 93  
Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys  
1 5 10 15  
Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser  
20 25 30  
Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe Tyr Gly Ala Glu  
35 40 45  
Ile Val Ser Ala Leu Asp Tyr Leu His  
50 55

<210> 94  
<211> 57  
<212> PRT  
<213> Caenorhabditis elegans

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<400> 94  
Tyr Phe Gln Glu Leu Lys Tyr Ser Phe Gln Glu Gln His Tyr Leu Cys  
1 5 10 15  
Phe Val Met Gln Phe Ala Asn Gly Gly Glu Leu Phe Thr His Val Arg  
20 25 30  
Lys Cys Gly Thr Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ala Glu  
35 40 45  
Ile Val Leu Ala Leu Gly Tyr Leu His  
50 55

<210> 95  
<211> 59  
<212> PRT  
<213> Homo sapiens

<400> 95  
Asn Asn Phe Ser Val Ala Gln Cys Gln Leu Met Lys Thr Glu Arg Pro  
1 5 10 15  
Arg Pro Asn Thr Phe Ile Ile Arg Cys Leu Gln Trp Thr Thr Val Ile  
20 25 30  
Glu Arg Thr Phe His Val Glu Thr Pro Glu Glu Arg Glu Glu Trp Ala  
35 40 45  
Thr Ala Ile Gln Thr Val Ala Asp Gly Leu Lys  
50 55

<210> 96  
<211> 59  
<212> PRT  
<213> Caenorhabditis elegans

<400> 96  
Ser Thr Phe Ala Ile Phe Tyr Phe Gln Thr Met Leu Phe Glu Lys Pro  
1 5 10 15  
Arg Pro Asn Met Phe Met Val Arg Cys Leu Gln Trp Thr Thr Val Ile  
20 25 30  
Glu Arg Thr Phe Tyr Ala Glu Ser Ala Glu Val Arg Gln Arg Trp Ile  
35 40 45  
His Ala Ile Glu Ser Ile Ser Lys Lys Tyr Lys  
50 55

<210> 97  
<211> 33  
<212> PRT  
<213> Homo sapiens

<400> 97  
Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe  
1 5 10 15  
Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg  
20 25 30  
Glu

<210> 98

<211> 33

<212> PRT

<213> Caenorhabditis elegans

<400> 98

Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe  
1 5 10 15  
Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg  
20 25 30  
Glu

<210> 99

<211> 473

<212> PRT

<213> Homo sapiens

<400> 99

Met Leu Gly Thr Val Lys Met Glu Gly His Glu Thr Ser Asp Trp Asn  
1 5 10 15  
Ser Tyr Tyr Ala Asp Thr Gln Glu Ala Tyr Ser Ser Val Pro Val Ser  
20 25 30  
Asn Met Asn Ser Gly Leu Gly Ser Met Asn Ser Met Asn Thr Tyr Met  
35 40 45  
Thr Met Asn Thr Met Thr Ser Gly Asn Met Thr Pro Ala Ser Phe  
50 55 60  
Asn Met Ser Tyr Ala Asn Pro Ala Leu Gly Ala Gly Leu Ser Pro Gly  
65 70 75 80  
Ala Val Ala Gly Met Pro Gly Gly Ser Ala Gly Ala Met Asn Ser Met  
85 90 95  
Thr Ala Ala Gly Val Thr Ala Met Gly Thr Ala Leu Ser Pro Ser Gly  
100 105 110  
Met Gly Ala Met Gly Ala Gln Gln Ala Ala Ser Met Met Asn Gly Leu  
115 120 125  
Gly Pro Tyr Ala Ala Ala Met Asn Pro Cys Met Ser Pro Met Ala Tyr  
130 135 140  
Ala Pro Ser Asn Leu Gly Arg Ser Arg Ala Gly Gly Gly Asp Ala  
145 150 155 160  
Lys Thr Phe Lys Arg Ser Tyr Pro His Ala Lys Pro Pro Tyr Ser Tyr  
165 170 175  
Ile Ser Leu Ile Thr Met Ala Ile Gln Arg Ala Pro Ser Lys Met Leu  
180 185 190  
Thr Leu Ser Glu Ile Tyr Gln Trp Ile Met Asp Leu Phe Pro Tyr Tyr  
195 200 205  
Arg Gln Asn Gln Gln Arg Trp Gln Asn Ser Ile Arg His Ser Leu Ser  
210 215 220  
Phe Asn Asp Cys Phe Val Lys Val Ala Arg Ser Pro Asp Lys Pro Gly  
225 230 235 240  
Lys Gly Ser Tyr Trp Thr Leu His Pro Asp Ser Gly Asn Met Phe Glu  
245 250 255  
Asn Gly Cys Tyr Leu Arg Arg Gln Lys Arg Phe Lys Cys Glu Lys Gln  
260 265 270  
Pro Gly Ala Gly Gly Gly Ser Gly Ser Gly Gly Ser Gly Ala  
275 280 285  
Lys Gly Gly Pro Glu Ser Arg Lys Asp Pro Ser Gly Ala Ser Asn Pro  
290 295 300  
Ser Ala Asp Ser Pro Leu His Arg Gly Val His Gly Lys Thr Gly Gln

305	310	315	320
Leu Glu Gly Ala Pro Ala Pro Gly Pro Ala Ala Ser Pro Gln Thr Leu			
325	330	335	
Asp His Ser Gly Ala Thr Ala Thr Gly Gly Ala Ser Glu Leu Lys Thr			
340	345	350	
Pro Ala Ser Ser Thr Ala Pro Pro Ile Ser Ser Gly Pro Gly Ala Leu			
355	360	365	
Ala Ser Val Pro Ala Ser His Pro Ala His Gly Leu Ala Pro His Glu			
370	375	380	
Ser Gln Leu His Leu Lys Gly Asp Pro His Tyr Ser Phe Asn His Pro			
385	390	395	400
Phe Ser Ile Asn Asn Leu Met Ser Ser Glu Gln Gln His Lys Leu			
405	410	415	
Asp Phe Lys Ala Tyr Glu Gln Ala Leu Gln Tyr Ser Pro Tyr Gly Ser			
420	425	430	
Thr Leu Pro Ala Ser Leu Pro Leu Gly Ser Ala Ser Val Thr Thr Arg			
435	440	445	
Ser Pro Ile Glu Pro Ser Ala Leu Glu Pro Ala Tyr Tyr Gln Gly Val			
450	455	460	
Tyr Ser Arg Pro Val Leu Asn Thr Ser			
465	470		

<210> 100  
<211> 347  
<212> PRT  
<213> Homo sapiens

<400> 100			
Met Leu Gly Ser Val Lys Met Glu Ala His Asp Leu Ala Glu Trp Ser			
1	5	10	15
Tyr Tyr Pro Glu Ala Gly Glu Val Tyr Ser Pro Val Thr Pro Val Pro			
20	25	30	
Thr Met Ala Pro Leu Asn Ser Tyr Met Thr Leu Asn Pro Leu Ser Ser			
35	40	45	
Pro Tyr Pro Gly Gly Leu Pro Ala Ser Pro Leu Pro Ser Gly Pro Leu			
50	55	60	
Ala Pro Pro Ala Pro Ala Ala Pro Leu Gly Pro Thr Phe Pro Gly Leu			
65	70	75	80
Gly Leu Ser Gly Gly Ser Ser Ser Gly Tyr Gly Ala Pro Gly Pro			
85	90	95	
Gly Leu Val His Gly Lys Glu Met Pro Lys Gly Tyr Arg Ala Pro Ala			
100	105	110	
His Ala Lys Pro Pro Tyr Ser Tyr Ile Ser Leu Ile Thr Met Ala Ile			
115	120	125	
Gln Gln Ala Pro Gly Lys Val Leu Thr Leu Ser Glu Ile Tyr Gln Trp			
130	135	140	
Ile Met Asp Leu Phe Pro Tyr Tyr Arg Asp Asn Gln Gln Arg Trp Gln			
145	150	155	160
Asn Ser Ile Arg His Ser Leu Ser Phe Asn Asp Cys Phe Val Lys Val			
165	170	175	
Ala Arg Ser Pro Asp Lys Pro Gly Lys Gly Ser Tyr Trp Ala Leu His			
180	185	190	
Pro Ser Ser Gly Asn Met Phe Glu Asn Gly Cys Tyr Leu Arg Arg Gln			
195	200	205	
Lys Arg Phe Lys Leu Glu Glu Lys Val Lys Lys Gly Gly Ser Gly Ala			
210	215	220	
Ser Thr Thr Arg Asn Gly Thr Gly Ser Ala Ala Ser Thr Thr Pro			

225	230	235	240
Ala Ala Thr Val Thr Ser Pro Pro Gln Pro Pro Pro Pro Ala Pro Glu			
245	250	255	
Pro Glu Ala Gln Gly Gly Glu Asp Val Gly Ala Leu Asp Cys Gly Ser			
260	265	270	
Pro Ala Ser Ser Thr Pro Tyr Phe Thr Gly Leu Glu Leu Pro Gly Asp			
275	280	285	
Leu Lys Leu Asp Ala Pro Tyr Asn Phe Asn His Pro Phe Ser Ile Asn			
290	295	300	
Asn Leu Met Ser Glu Gln Thr Pro Ala Pro Pro Lys Leu Asp Val Gly			
305	310	315	320
Phe Gly Gly Tyr Gly Ala Glu Gly Glu Pro Gly Val Tyr Tyr Gln			
325	330	335	
Gly Leu Tyr Ser Arg Ser Leu Leu Asn Ala Ser			
340	345		

<210> 101

<211> 635

<212> PRT

<213> Caenorhabditis elegans

<400> 101

Met Met Glu Met Leu Val Asp Gln Gly Thr Asp Ala Ser Ser Ser Ala			
1	5	10	15
Ser Thr Ser Thr Ser Ser Val Ser Arg Phe Gly Ala Asp Thr Phe Met			
20	25	30	
Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu Pro Ile Pro			
35	40	45	
Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln Leu Glu Pro			
50	55	60	
Pro Leu Asn Ser Ser Pro Ile Ile His Glu Gln Ile Pro Glu Glu Asp			
65	70	75	80
Ala Asp Leu Tyr Gly Ser Asn Glu Gln Cys Gly Gln Leu Gly Gly Ala			
85	90	95	
Ser Ser Asn Gly Ser Thr Ala Met Leu His Thr Pro Asp Gly Ser Asn			
100	105	110	
Ser His Gln Thr Ser Phe Pro Ser Glu Cys Tyr Thr Trp Pro Met Gln			
115	120	125	
Gln Tyr Ile Tyr Gln Glu Ser Ser Ala Thr Ile Pro His His His Leu			
130	135	140	
Asn Gln His Asn Asn Pro Tyr His Pro Met His Pro His His Gln Leu			
145	150	155	160
Pro His Met Gln Gln Leu Pro Gln Pro Leu Leu Asn Leu Asn Met Thr			
165	170	175	
Thr Leu Thr Ser Ser Gly Ser Ser Val Ala Ser Ser Ile Gly Gly Gly			
180	185	190	
Ala Gln Cys Ser Pro Cys Ala Ser Gly Ser Ser Thr Ala Ala Thr Asn			
195	200	205	
Ser Ser Gln Gln Gln Gln Thr Val Gly Gln Met Leu Ala Ala Ser Val			
210	215	220	
Pro Cys Ser Ser Ser Gly Met Thr Leu Gly Met Ser Leu Asn Leu Ser			
225	230	235	240
Gln Gly Gly Gly Pro Met Pro Ala Lys Lys Lys Arg Cys Arg Lys Lys			
245	250	255	
Pro Thr Asp Gln Leu Ala Gln Lys Lys Pro Asn Pro Trp Gly Glu Glu			
260	265	270	
Ser Tyr Ser Asp Ile Ile Ala Lys Ala Leu Glu Ser Ala Pro Asp Gly			

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275	280	285
Arg Leu Lys Leu Asn Glu Ile Tyr Gln Trp Phe Ser Asp Asn Ile Pro	290	295
295	300	
Tyr Phe Gly Glu Arg Ser Ser Pro Glu Glu Ala Ala Gly Trp Lys Asn	305	310
310	315	320
Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln	325	330
330	335	
Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala	340	345
345	350	
Lys Pro Gly Met Asn Pro Arg Arg Thr Arg Glu Arg Ser Asn Thr Ile	355	360
360	365	
Glu Thr Thr Thr Lys Ala Gln Leu Glu Lys Ser Arg Arg Gly Ala Lys	370	375
375	380	
Lys Arg Ile Lys Glu Arg Ala Leu Met Gly Ser Leu His Ser Thr Leu	385	390
390	395	400
Asn Gly Asn Ser Ile Ala Gly Ser Ile Gln Thr Ile Ser His Asp Leu	405	410
410	415	
Tyr Asp Asp Asp Ser Met Gln Gly Ala Phe Asp Asn Val Pro Ser Ser	420	425
425	430	
Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser Ser Ser	435	440
440	445	
Arg Val Ser Pro Ala Ile Gly Ser Asp Ile Tyr Asp Asp Leu Glu Phe	450	455
455	460	
Pro Ser Trp Val Gly Glu Ser Val Pro Ala Ile Pro Ser Asp Ile Val	465	470
470	475	480
Asp Arg Thr Asp Gln Met Arg Ile Asp Ala Thr Thr His Ile Gly Gly	485	490
490	495	
Val Gln Ile Lys Gln Glu Ser Lys Pro Ile Lys Thr Glu Pro Ile Ala	500	505
505	510	
Pro Pro Pro Ser Tyr His Glu Leu Asn Ser Val Arg Gly Ser Cys Ala	515	520
520	525	
Gln Asn Pro Leu Leu Arg Asn Pro Ile Val Pro Ser Thr Asn Phe Lys	530	535
535	540	
Pro Met Pro Leu Pro Gly Ala Tyr Gly Asn Tyr Gln Asn Gly Gly Ile	545	550
550	555	560
Thr Pro Ile Asn Trp Leu Ser Thr Ser Asn Ser Ser Pro Leu Pro Gly	565	570
570	575	
Ile Gln Ser Cys Gly Ile Val Ala Ala Gln His Thr Val Ala Ser Ser	580	585
585	590	
Ser Ala Leu Pro Ile Asp Leu Glu Asn Leu Thr Leu Pro Asp Gln Pro	595	600
600	605	
Leu Met Asp Thr Met Asp Val Asp Ala Leu Ile Arg His Glu Leu Ser	610	615
615	620	
Gln Ala Gly Gly Gln His Ile His Phe Asp Leu	625	630
630	635	

<210> 102

<211> 501

<212> PRT

<213> Homo sapiens

<400> 102

Met Arg Ile Gln Pro Gln Lys Ala Ala Ala Ile Ile Asp Leu Asp Pro

1 5 10 15

Asp Phe Glu Pro Gln Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro

20 25 30

Arg Pro Glu Ile Ala Asn Gln Pro Ser Glu Pro Pro Glu Val Glu Pro

Q D E S G I N T R C F P

	35	40	45
Asp	Leu	Gly	Glu
Lys	Val	His	Thr
		Glu	Gly
		Arg	Ser
		Glu	Pro
		Pro	Ile
50		55	60
Leu	Pro	Ser	Arg
Leu	Ser	Glu	Pro
		Ala	Gly
		Gly	Pro
		Gln	Gly
		Pro	Gly
65		70	75
Leu	Gly	Ala	Val
		Thr	Gly
		Pro	Arg
		Lys	Gly
		Gly	Ser
		Arg	Arg
		Asn	Asn
		Ala	
85		90	95
Trp	Gly	Asn	Gln
		Ser	Tyr
		Ala	Glu
		Phe	Ile
		Ser	Gln
		Ala	Ile
		Glu	Ser
100		105	110
Ala	Pro	Glu	Lys
		Arg	Leu
		Thr	Leu
		Ala	Gln
		Ile	Tyr
		Glu	Trp
115		120	125
Arg	Thr	Val	Pro
		Tyr	Phe
		Lys	Asp
		Lys	Gly
		Asp	Ser
		Ser	Asn
		Ser	Ser
130		135	140
Gly	Trp	Lys	Asn
		Ser	Ile
		Arg	Arg
		His	Asn
		Leu	Ser
		Leu	His
145		150	155
Ile	Lys	Val	His
		Asn	Glu
		Ala	Thr
		Gly	Lys
		Lys	Ser
		Ser	Trp
		Trp	Trp
		Met	Leu
165		170	175
Asn	Pro	Glu	Gly
		Lys	Ser
		Gly	Lys
		Ser	Gly
		Lys	Ala
		Pro	Arg
		Arg	Arg
		Ala	Ala
180		185	190
Ser	Met	Asp	Ser
		Ser	Ser
		Ser	Lys
		Leu	Leu
		Arg	Gly
		Arg	Ser
195		200	205
Lys	Lys	Lys	Pro
		Ser	Ser
		Val	Leu
		Pro	Ala
		Pro	Pro
210		215	220
Thr	Ser	Pro	Val
		Gly	His
		Phe	Ala
		Lys	Trp
225		230	235
Arg	Asn	Arg	Glu
		Glu	Ala
		Asp	Met
		Trp	Thr
		Thr	Phe
		Arg	Pro
		Pro	Arg
245		250	255
Ser	Ser	Asn	Ala
		Ser	Ser
		Val	Val
		Ser	Ser
		Thr	Arg
		Leu	Ser
		Pro	Leu
260		265	270
Glu	Ser	Glu	Val
		Leu	Ala
		Glu	Ile
		Ile	Pro
		Ala	Ser
275		280	285
Ala	Gly	Gly	Val
		Pro	Pro
		Thr	Leu
		Asn	Glu
		Gly	Leu
		Leu	Glu
290		295	300
Gly	Leu	Asn	Leu
		Thr	Ser
		Ser	His
		Leu	Leu
		Ser	Arg
305		310	315
Ser	Gly	Phe	Ser
		Leu	Gln
		His	Pro
		Gly	Val
325		330	335
Tyr	Ser	Ser	Ser
		Leu	Phe
		Ser	Pro
		Ala	Glu
		Gly	Pro
340		345	350
Glu	Gly	Cys	Phe
		Ser	Ser
		Ser	Gln
		Ala	Leu
		Glu	Ala
355		360	365
Asp	Thr	Pro	Pro
		Pro	Pro
		Ala	Asp
		Val	Leu
370		375	380
Ile	Leu	Ser	Gln
		Ala	Pro
		Pro	Thr
		Leu	Leu
		Leu	Gly
385		390	395
Ser	Ser	Lys	Leu
		Ala	Thr
		Gly	Val
		Leu	Gly
405		410	415
Ala	Arg	Gly	Pro
		Pro	Ser
		Ser	Ser
		Leu	Val
420		425	430
Pro	Pro	Val	Met
		Ala	Ser
		Pro	Ile
		Ile	Pro
435		440	445
Val	Leu	Thr	Pro
		Pro	Thr
		Glu	Ala
		Ala	Ala
		Ser	Gln
450		455	460
Asp	Leu	Asp	Leu
		Asp	Asp
		Met	Tyr
		Tyr	Met
		Glu	Asn
		Asn	Leu
		Glu	Cys
		Cys	Asp
465		470	475
Asn	Ile	Ile	Ser
		Asp	Asp
		Leu	Met
		Asp	Glu
		Gly	Glu
		Gly	Leu
		Asp	Phe
485		490	495
Phe	Glu	Pro	Asp
		Asp	Pro

<210> 103  
<211> 366  
<212> PRT  
<213> Homo sapiens

<400> 103

Arg	Gly	Ala	Ile	Arg	Ile	Glu	Lys	Asn	Ala	Asp	Leu	Cys	Tyr	Leu	Ser
1															
															15
Thr	Val	Asp	Trp	Ser	Leu	Ile	Leu	Asp	Ala	Val	Ser	Asn	Asn	Tyr	Ile
															30
Val	Gly	Asn	Lys	Pro	Pro	Lys	Glu	Cys	Gly	Asp	Leu	Cys	Pro	Gly	Thr
															45
Met	Glu	Glu	Lys	Pro	Met	Cys	Glu	Lys	Thr	Thr	Ile	Asn	Asn	Glu	Tyr
															60
Asn	Tyr	Arg	Cys	Trp	Thr	Thr	Asn	Arg	Cys	Gln	Lys	Met	Cys	Pro	Ser
															80
Thr	Cys	Gly	Lys	Arg	Ala	Cys	Thr	Glu	Asn	Asn	Glu	Cys	Cys	His	Pro
															95
Glu	Cys	Leu	Gly	Ser	Cys	Ser	Ala	Pro	Asp	Asn	Asp	Thr	Ala	Cys	Val
															110
Ala	Cys	Arg	His	Tyr	Tyr	Tyr	Ala	Gly	Val	Cys	Val	Pro	Ala	Cys	Pro
															125
Pro	Asn	Thr	Tyr	Arg	Phe	Glu	Gly	Trp	Arg	Cys	Val	Asp	Arg	Asp	Phe
															140
Cys	Ala	Asn	Ile	Leu	Ser	Ala	Glu	Ser	Ser	Asp	Ser	Glu	Gly	Phe	Val
															160
Ile	His	Asp	Gly	Glu	Cys	Met	Gln	Glu	Cys	Pro	Ser	Gly	Phe	Ile	Arg
															175
Asn	Gly	Ser	Gln	Ser	Met	Tyr	Cys	Ile	Pro	Cys	Glu	Gly	Pro	Cys	Pro
															190
Lys	Val	Cys	Glu	Glu	Glu	Lys	Lys	Thr	Lys	Thr	Ile	Asp	Ser	Val	Thr
															205
Ser	Ala	Gln	Met	Leu	Gln	Gly	Cys	Thr	Ile	Phe	Lys	Gly	Asn	Leu	Leu
															220
Ile	Asn	Ile	Arg	Arg	Gly	Asn	Asn	Ile	Ala	Ser	Glu	Leu	Asn	Phe	
															240
Met	Gly	Leu	Ile	Glu	Val	Val	Thr	Gly	Tyr	Val	Lys	Ile	Arg	His	Ser
															255
His	Ala	Leu	Val	Ser	Leu	Ser	Phe	Leu	Lys	Asn	Leu	Arg	Leu	Ile	Leu
															270
Gly	Glu	Glu	Gln	Leu	Glu	Gly	Asn	Tyr	Ser	Phe	Tyr	Val	Leu	Asp	Asn
															285
Gln	Asn	Leu	Gln	Gln	Leu	Trp	Asp	Trp	Asp	His	Arg	Asn	Leu	Thr	Ile
															300
Lys	Ala	Gly	Lys	Met	Tyr	Phe	Ala	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser
															320
Glu	Ile	Tyr	Arg	Met	Glu	Glu	Val	Thr	Gly	Thr	Lys	Gly	Arg	Gln	Ser
															335
Lys	Gly	Asp	Ile	Asn	Thr	Arg	Asn	Asn	Gly	Glu	Arg	Ala	Ser	Cys	Glu
															350
Ser	Asp	Val	Leu	His	Phe	Thr	Ser	Thr	Thr	Thr	Ser	Lys	Asn		
															365

&lt;210&gt; 104

<211> 370  
<212> PRT  
<213> Homo sapiens

<400> 104

Arg Gly Ser Val Arg Ile Glu Lys Asn Asn Glu Leu Cys Tyr Leu Ala  
1 5 10 15  
Thr Ile Asp Trp Ser Arg Ile Leu Asp Ser Val Glu Asp Asn Tyr Ile  
20 25 30  
Val Leu Asn Lys Asp Asp Asn Glu Glu Cys Gly Asp Ile Cys Pro Gly  
35 40 45  
Thr Ala Lys Gly Lys Thr Asn Cys Pro Ala Thr Val Ile Asn Gly Gln  
50 55 60  
Phe Val Glu Arg Cys Trp Thr His Ser His Cys Gln Lys Val Cys Pro  
65 70 75 80  
Thr Ile Cys Lys Ser His Gly Cys Thr Ala Glu Gly Leu Cys Cys His  
85 90 95  
Ser Glu Cys Leu Gly Asn Cys Ser Gln Pro Asp Asp Pro Thr Lys Cys  
100 105 110  
Val Ala Cys Arg Asn Phe Tyr Leu Asp Gly Arg Cys Val Glu Thr Cys  
115 120 125  
Pro Pro Pro Tyr Tyr His Phe Gln Asp Trp Arg Cys Val Asn Phe Ser  
130 135 140  
Phe Cys Gln Asp Leu His His Lys Cys Lys Asn Ser Arg Arg Gln Gly  
145 150 155 160  
Cys His Gln Tyr Val Ile His Asn Asn Lys Cys Ile Pro Glu Cys Pro  
165 170 175  
Ser Gly Tyr Thr Met Asn Ser Ser Asn Leu Leu Cys Thr Pro Cys Leu  
180 185 190  
Gly Pro Cys Pro Lys Val Cys His Leu Leu Glu Gly Glu Lys Thr Ile  
195 200 205  
Asp Ser Val Thr Ser Ala Gln Glu Leu Arg Gly Cys Thr Val Ile Asn  
210 215 220  
Gly Ser Leu Ile Ile Asn Ile Arg Gly Gly Asn Asn Leu Ala Ala Glu  
225 230 235 240  
Leu Glu Ala Asn Leu Gly Leu Ile Glu Glu Ile Ser Gly Tyr Leu Lys  
245 250 255  
Ile Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu  
260 265 270  
Arg Leu Ile Arg Gly Glu Thr Leu Glu Ile Gly Asn Tyr Ser Phe Tyr  
275 280 285  
Ala Leu Asp Asn Gln Asn Leu Arg Gln Leu Trp Asp Trp Ser Lys His  
290 295 300  
Asn Leu Thr Ile Thr Gln Gly Lys Leu Phe Phe His Tyr Asn Pro Lys  
305 310 315 320  
Leu Cys Leu Ser Glu Ile His Lys Met Glu Glu Val Ser Gly Thr Lys  
325 330 335  
Gly Arg Gln Glu Arg Asn Asp Ile Ala Leu Lys Thr Asn Gly Asp Gln  
340 345 350  
Ala Ser Cys Glu Asn Glu Leu Leu Lys Phe Ser Tyr Ile Arg Thr Ser  
355 360 365  
Phe Asp  
370

<210> 105  
<211> 383  
<212> PRT

<213> Drosophila melanogaster

<400> 105

Arg Gly Gly Val Arg Ile Glu Lys Asn His Lys Leu Cys Tyr Asp Arg  
1 5 10 15  
Thr Ile Asp Trp Leu Glu Ile Leu Ala Glu Asn Glu Ser Gln Leu Val  
20 25 30  
Val Leu Thr Glu Asn Gly Lys Glu Lys Glu Cys Ser Leu Ser Lys Cys  
35 40 45  
Pro Gly Glu Ile Arg Ile Glu Glu Gly His Asp Asn Thr Ala Ile Glu  
50 55 60  
Gly Glu Leu Asn Ala Ser Cys Gln Leu His Asn Asn Arg Arg Leu Cys  
65 70 75 80  
Trp Asn Ser Lys Leu Cys Gln Thr Lys Cys Pro Glu Lys Cys Arg Asn  
85 90 95  
Asn Cys Ile Asp Glu His Thr Cys Cys Ser Gln Asp Cys Leu Gly Gly  
100 105 110  
Cys Val Ile Asp Lys Asn Gly Asn Glu Ser Cys Ile Ser Cys Arg Asn  
115 120 125  
Val Ser Phe Asn Asn Ile Cys Met Asp Ser Cys Pro Lys Gly Tyr Tyr  
130 135 140  
Gln Phe Asp Ser Arg Cys Val Thr Ala Asn Glu Cys Ile Thr Leu Thr  
145 150 155 160  
Lys Phe Glu Thr Asn Ser Val Tyr Ser Gly Ile Pro Tyr Asn Gly Gln  
165 170 175  
Cys Ile Thr His Cys Pro Thr Gly Tyr Gln Lys Ser Glu Asn Lys Arg  
180 185 190  
Met Cys Glu Pro Cys Pro Gly Gly Lys Cys Asp Lys Glu Cys Ser Ser  
195 200 205  
Gly Leu Ile Asp Ser Leu Glu Arg Ala Arg Glu Phe His Gly Cys Thr  
210 215 220  
Ile Ile Thr Gly Thr Glu Pro Leu Thr Ile Ser Ile Lys Arg Glu Ser  
225 230 235 240  
Gly Ala His Val Met Asp Glu Leu Lys Tyr Gly Leu Ala Ala Val His  
245 250 255  
Lys Ile Gln Ser Ser Leu Met Val His Leu Thr Tyr Gly Leu Lys Ser  
260 265 270  
Leu Lys Phe Phe Gln Ser Leu Thr Glu Ile Ser Gly Asp Pro Pro Met  
275 280 285  
Asp Ala Asp Lys Tyr Ala Leu Tyr Val Leu Asp Asn Arg Asp Leu Asp  
290 295 300  
Glu Leu Trp Gly Pro Asn Gln Thr Val Phe Ile Arg Lys Gly Gly Val  
305 310 315 320  
Phe Phe His Phe Asn Pro Lys Leu Cys Val Ser Thr Ile Asn Gln Leu  
325 330 335  
Leu Pro Met Leu Ala Ser Lys Pro Lys Phe Phe Glu Lys Ser Asp Glu  
340 345 350  
Gly Ala Asp Ser Asn Gly Asn Arg Gly Ser Cys Gly Thr Ala Val Leu  
355 360 365  
Asn Val Thr Leu Gln Ser Val Gly Ala Asn Ser Ala Ser Leu Asn  
370 375 380

<210> 106

<211> 381

<212> PRT

<213> Caenorhabditis elegans

<400> 106

Asn Gly Gly Val Arg Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys  
1 5 10 15  
Thr Ile Asp Trp Lys His Leu Ile Thr Ser Ser Ile Asn Asp Val Val  
20 25 30  
Val Asp Asn Ala Ala Glu Tyr Ala Val Thr Glu Thr Gly Leu Met Cys  
35 40 45  
Pro Arg Gly Ala Cys Glu Glu Asp Lys Gly Glu Ser Lys Cys His Tyr  
50 55 60  
Leu Glu Glu Lys Asn Gln Glu Gln Gly Val Glu Arg Val Gln Ser Cys  
65 70 75 80  
Trp Ser Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu  
85 90 95  
Pro Thr Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys  
100 105 110  
His Asp Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala  
115 120 125  
Cys His Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys  
130 135 140  
Cys Asp Ala His Leu Tyr Leu Leu Gln Arg Arg Cys Val Thr Arg  
145 150 155 160  
Glu Gln Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro  
165 170 175  
Ile Lys Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr  
180 185 190  
Gln Ile Asn Pro Asp Asp His Arg Glu Cys Arg Lys Cys Val Gly Lys  
195 200 205  
Cys Glu Ile Val Cys Glu Ile Asn His Val Ile Asp Thr Phe Pro Lys  
210 215 220  
Ala Gln Ala Ile Arg Leu Cys Asn Ile Ile Asp Gly Asn Leu Thr Ile  
225 230 235 240  
Glu Ile Arg Gly Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp  
245 250 255  
Ile Phe Ala Asn Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln  
260 265 270  
Ser Ser Pro Phe Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile  
275 280 285  
Glu Ala Lys Ser Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu  
290 295 300  
Asn Pro Asn Leu Lys Lys Leu Phe Asp Ser Thr Thr Asp Leu Thr Leu  
305 310 315 320  
Asp Arg Gly Thr Val Ser Ile Ala Asn Asn Lys Met Leu Cys Phe Lys  
325 330 335  
Tyr Ile Lys Gln Leu Met Ser Lys Leu Asn Ile Pro Leu Asp Pro Ile  
340 345 350  
Asp Gln Ser Glu Gly Thr Asn Gly Glu Lys Ala Ile Cys Glu Asp Met  
355 360 365  
Ala Ile Asn Val Ser Ile Thr Ala Val Asn Ala Asp Ser  
370 375 380

<210> 107

<211> 370

<212> PRT

<213> Homo sapiens

<400> 107

Ala Leu Pro Val Ala Val Leu Leu Ile Val Gly Gly Leu Val Ile Met

1	5	10	15												
Leu	Tyr	Val	Phe	His	Arg	Lys	Arg	Asn	Asn	Ser	Arg	Leu	Gly	Asn	Gly
20								25					30		
Val	Leu	Tyr	Ala	Ser	Val	Asn	Pro	Glu	Tyr	Phe	Ser	Ala	Ala	Asp	Val
35								40					45		
Tyr	Val	Pro	Asp	Glu	Trp	Glu	Val	Ala	Arg	Glu	Lys	Ile	Thr	Met	Ser
50							55				60				
Arg	Glu	Leu	Gly	Gln	Gly	Ser	Phe	Gly	Met	Val	Tyr	Glu	Gly	Val	Ala
65							70			75			80		
Lys	Gly	Val	Val	Lys	Asp	Glu	Pro	Glu	Thr	Arg	Val	Ala	Ile	Lys	Thr
							85			90			95		
Val	Asn	Glu	Ala	Ala	Ser	Met	Arg	Glu	Arg	Ile	Glu	Phe	Leu	Asn	Glu
							100			105			110		
Ala	Ser	Val	Met	Lys	Glu	Phe	Asn	Cys	His	His	Val	Val	Arg	Leu	Leu
							115			120			125		
Gly	Val	Val	Ser	Gln	Gly	Gln	Pro	Thr	Leu	Val	Ile	Met	Glu	Leu	Met
							130			135			140		
Thr	Arg	Gly	Asp	Leu	Lys	Ser	Tyr	Leu	Arg	Ser	Leu	Arg	Pro	Glu	Met
							145			150			155		160
Glu	Asn	Asn	Pro	Val	Leu	Ala	Pro	Pro	Ser	Leu	Ser	Lys	Met	Ile	Gln
							165			170			175		
Met	Ala	Gly	Glu	Ile	Ala	Asp	Gly	Met	Ala	Tyr	Leu	Asn	Ala	Asn	Lys
							180			185			190		
Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Met	Val	Ala	Glu	Asp
							195			200			205		
Phe	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	Thr	Arg	Asp	Ile	Tyr	Glu
							210			215			220		
Thr	Asp	Tyr	Tyr	Arg	Lys	Gly	Gly	Lys	Gly	Leu	Leu	Pro	Val	Arg	Trp
							225			230			235		240
Met	Ser	Pro	Glu	Ser	Leu	Lys	Asp	Gly	Val	Phe	Thr	Thr	Tyr	Ser	Asp
							245			250			255		
Val	Trp	Ser	Phe	Gly	Val	Val	Leu	Trp	Glu	Ile	Ala	Thr	Leu	Ala	Glu
							260			265			270		
Gln	Pro	Tyr	Gln	Gly	Leu	Ser	Asn	Glu	Gln	Val	Leu	Arg	Phe	Val	Met
							275			280			285		
Glu	Gly	Gly	Leu	Leu	Asp	Lys	Pro	Asp	Asn	Cys	Pro	Asp	Met	Leu	Phe
							290			295			300		
Glu	Leu	Met	Arg	Met	Cys	Trp	Gln	Tyr	Asn	Pro	Lys	Met	Arg	Pro	Ser
							305			310			315		320
Phe	Leu	Glu	Ile	Ile	Ser	Ser	Ile	Lys	Glu	Glu	Met	Glu	Pro	Gly	Phe
							325			330			335		
Arg	Glu	Val	Ser	Phe	Tyr	Tyr	Ser	Glu	Glu	Asn	Lys	Leu	Pro	Glu	Pro
							340			345			350		
Glu	Glu	Leu	Asp	Leu	Glu	Pro	Glu	Asn	Met	Glu	Ser	Val	Pro	Leu	Asp
							355			360			365		
Pro	Ser														
		370													

<210> 108

<211> 374

<212> PRT

<213> Homo sapiens

<400> 108

Ile	Gly	Pro	Leu	Ile	Phe	Val	Phe	Leu	Phe	Ser	Val	Val	Ile	Gly	Ser
1				5				10					15		
Ile	Tyr	Leu	Phe	Leu	Arg	Lys	Arg	Gln	Pro	Asp	Gly	Pro	Leu	Gly	Pro

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 259 260 261 262 263 264 265 266 267 268 269 269 270 271 272 273 274 275 276 277 278 279 279 280 281 282 283 284 285 286 287 288 289 289 290 291 292 293 294 295 296 297 298 299 299 300 301 302 303 304 305 306 307 308 309 309 310 311 312 313 314 315 316 317 318 319 319 320 321 322 323 324 325 326 327 328 329 329 330 331 332 333 334 335 336 337 338 339 339 340 341 342 343 344 345 346 347 348 348 349 350 351 352 353 354 354 355 356 357 358 359 359 360 361 362 363 364 364 365 366 367 368 368 369 369 370 370

	20	25	30												
Leu	Tyr	Ala	Ser	Ser	Asn	Pro	Glu	Tyr	Leu	Ser	Ala	Ser	Asp	Val	Phe
35							40					45			
Pro	Cys	Ser	Val	Tyr	Val	Pro	Asp	Glu	Trp	Glu	Val	Ser	Arg	Glu	Lys
50						55				60					
Ile	Thr	Leu	Leu	Arg	Glu	Leu	Gly	Gln	Gly	Ser	Phe	Gly	Met	Val	Tyr
65						70				75			80		
Glu	Gly	Asn	Ala	Arg	Asp	Ile	Ile	Lys	Gly	Glu	Ala	Glu	Thr	Arg	Val
						85				90			95		
Ala	Val	Lys	Thr	Val	Asn	Glu	Ser	Ala	Ser	Leu	Arg	Glu	Arg	Ile	Glu
						100				105			110		
Phe	Leu	Asn	Glu	Ala	Ser	Val	Met	Lys	Gly	Phe	Thr	Cys	His	His	Val
						115				120			125		
Val	Arg	Leu	Leu	Gly	Val	Val	Ser	Lys	Gly	Gln	Pro	Thr	Leu	Val	Val
						130				135			140		
Met	Glu	Leu	Met	Ala	His	Gly	Asp	Leu	Lys	Ser	Tyr	Leu	Arg	Ser	Leu
145						150				155			160		
Arg	Pro	Glu	Ala	Glu	Asn	Asn	Pro	Gly	Arg	Pro	Pro	Pro	Thr	Leu	Gln
						165				170			175		
Glu	Met	Ile	Gln	Met	Ala	Ala	Glu	Ile	Ala	Asp	Gly	Met	Ala	Tyr	Leu
						180				185			190		
Asn	Ala	Lys	Lys	Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Met
						195				200			205		
Val	Ala	His	Asp	Phe	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	Thr	Arg
						210				215			220		
Asp	Ile	Tyr	Glu	Thr	Asp	Tyr	Tyr	Arg	Lys	Gly	Gly	Lys	Gly	Leu	Leu
						225				230			235		240
Pro	Val	Arg	Trp	Met	Ala	Pro	Glu	Ser	Leu	Lys	Asp	Gly	Val	Phe	Thr
						245				250			255		
Thr	Ser	Ser	Asp	Met	Trp	Ser	Phe	Gly	Val	Val	Leu	Trp	Glu	Ile	Thr
						260				265			270		
Ser	Leu	Ala	Glu	Gln	Pro	Tyr	Gln	Gly	Leu	Ser	Asn	Glu	Gln	Val	Leu
						275				280			285		
Lys	Phe	Val	Met	Asp	Gly	Gly	Tyr	Leu	Asp	Gln	Pro	Asp	Asn	Cys	Pro
						290				295			300		
Glu	Arg	Val	Thr	Asp	Leu	Met	Arg	Met	Cys	Trp	Gln	Phe	Asn	Pro	Lys
						305				310			315		320
Met	Arg	Pro	Thr	Phe	Leu	Glu	Ile	Val	Asn	Leu	Leu	Lys	Asp	Asp	Leu
						325				330			335		
His	Pro	Ser	Phe	Pro	Glu	Val	Ser	Phe	Phe	His	Ser	Glu	Glu	Asn	Lys
						340				345			350		
Ala	Pro	Glu	Ser	Glu	Glu	Leu	Glu	Met	Glu	Phe	Glu	Asp	Met	Glu	Asn
						355				360			365		
Val	Pro	Leu	Asp	Arg	Ser										
						370									

<210> 109

<211> 384

<212> PRT

<213> Drosophila melanogaster

<400> 109

Gly Ile Gly Leu Ala Phe Leu Ile Val Ser Leu Phe Gly Tyr Val Cys

1 5 10 15

Tyr Leu His Lys Arg Lys Val Pro Ser Asn Asp Leu His Met Asn Thr

20 25 30

Glu Val Asn Pro Phe Tyr Ala Ser Met Gln Tyr Ile Pro Asp Asp Trp

35	40	45
Glu Val Leu Arg Glu Asn Ile Ile Gln Leu Ala Pro	Leu Gly Gln Gly	
50	55	60
Ser Phe Gly Met Val Tyr Glu Gly Ile Leu Lys Ser	Phe Pro Pro Asn	
65	70	75
Gly Val Asp Arg Glu Cys Ala Ile Lys Thr Val Asn	Glu Asn Ala Thr	
85	90	95
Asp Arg Glu Arg Thr Asn Phe Leu Ser Glu Ala Ser	Val Met Lys Glu	
100	105	110
Phe Asp Thr Tyr His Val Val Arg Leu Leu Gly Val	Cys Ser Arg Gly	
115	120	125
Gln Pro Ala Leu Val Val Met Glu Leu Met Lys Lys	Gly Asp Leu Lys	
130	135	140
Ser Tyr Leu Arg Ala His Arg Pro Glu Glu Arg Asp	Glu Ala Met Met	
145	150	155
Thr Tyr Leu Asn Arg Ile Gly Val Thr Gly Asn Val	Gln Pro Pro Thr	
165	170	175
Tyr Gly Arg Ile Tyr Gln Met Ala Ile Glu Ile Ala	Asp Gly Met Ala	
180	185	190
Tyr Leu Ala Ala Lys Lys Phe Val His Arg Asp Leu	Ala Ala Arg Asn	
195	200	205
Cys Met Val Ala Asp Asp Leu Thr Val Lys Ile	Gly Asp Phe Gly Met	
210	215	220
Thr Arg Asp Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys	Gly Thr Lys Gly	
225	230	235
Leu Leu Pro Val Arg Trp Met Pro Pro Glu Ser Leu	Arg Asp Gly Val	
245	250	255
Tyr Ser Ser Ala Ser Asp Val Phe Ser Phe Gly Val	Val Leu Trp Glu	
260	265	270
Met Ala Thr Leu Ala Ala Gln Pro Tyr Gln Gly Leu	Ser Asn Glu Gln	
275	280	285
Val Leu Arg Tyr Val Ile Asp Gly Gly Val Met Glu	Arg Pro Glu Asn	
290	295	300
Cys Pro Asp Phe Leu His Lys Leu Met Gln Arg Cys	Trp His His Arg	
305	310	315
Ser Ser Ala Arg Pro Ser Phe Leu Asp Ile Ile Ala	Tyr Leu Glu Pro	
325	330	335
Gln Cys Pro Asn Ser Gln Phe Lys Glu Val Ser Phe	Tyr His Ser Glu	
340	345	350
Ala Gly Leu Gln His Arg Glu Lys Glu Arg Lys Glu	Arg Asn Gln Leu	
355	360	365
Asp Ala Phe Ala Ala Val Pro Leu Asp Gln Asp Leu	Gln Asp Arg Glu	
370	375	380

<210> 110

<211> 380

<212> PRT

<213> Caenorhabditis elegans

<400> 110

Gly Met Leu Leu Val Phe Leu Ile Leu Met Ser Ile	Ala Gly Cys Ile		
1	5	10	15
Ile Tyr Tyr Ile Gln Val Arg Tyr Gly Lys Lys Val	Lys Ala Leu		
20	25	30	
Ser Asp Phe Met Gln Leu Asn Pro Glu Tyr Cys Val	Asp Asn Lys Tyr		
35	40	45	
Asn Ala Asp Asp Trp Glu Leu Arg Gln Asp Asp Val	Val Leu Gly Gln		

F D C D F D F D F D F D

50	55	60
Gln	Cys	Gly Glu Gly Ser Phe Gly Lys Val Tyr Leu Gly Thr Gly Asn
65		70 75 80
Asn	Val	Val Ser Leu Met Gly Asp Arg Phe Gly Pro Cys Ala Ile Lys
		85 90 95
Ile	Asn	Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn Tyr Leu Met
		100 105 110
Glu	Ala	Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile Val Gln Leu
		115 120 125
Tyr	Gly	Val Ile Ser Thr Val Gln Pro Ala Met Val Val Met Glu Met
		130 135 140
Met	Asp	Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys Arg Glu Asp
145		150 155 160
Glu	Val	Phe Asn Glu Thr Asp Cys Asn Phe Phe Asp Ile Ile Pro Arg
		165 170 175
Asp	Lys	Phe His Glu Trp Ala Ala Gln Ile Cys Asp Gly Met Ala Tyr
		180 185 190
Leu	Glu	Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys
		195 200 205
Met	Ile	Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala
		210 215 220
Arg	Asp	Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met
225		230 235 240
Met	Pro	Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe
		245 250 255
Asp	Ser	Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met
		260 265 270
Val	Thr	Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val
		275 280 285
Leu	Asn	Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys
		290 295 300
Cys	Glu	Asn Tyr Trp Tyr Lys Val Met Lys Met Cys Trp Arg Tyr Ser
305		310 315 320
Pro	Arg	Asp Arg Pro Thr Phe Leu Gln Leu Val His Leu Leu Ala Ala
		325 330 335
Glu	Ala	Ser Pro Glu Phe Arg Asp Leu Ser Phe Val Leu Thr Asp Asn
		340 345 350
Gln	Met	Ile Leu Asp Asp Ser Glu Ala Leu Asp Leu Asp Asp Ile Asp
		355 360 365
Asp	Thr	Asp Met Asn Asp Gln Val Val Glu Val Ala
		370 375 380

<210> 111  
<211> 103  
<212> PRT  
<213> Caenorhabditis elegans

<400> 111

Asn	Ile	Asp	Arg	Glu	Phe	Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys
1				5				10							15
Lys	Leu	Lys	Asp	Lys	Lys	Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val
								20				25			30
Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr
								35			40		45		
Leu	Asp	Gly	Arg	Leu	Gln	Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val
						50		55		60					
Val	Tyr	Gly	Lys	Leu	Trp	Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr

65                   70                   75                   80  
Arg His Val Asp His Cys Lys His Ala Phe Glu Met Lys Ser Asp Met  
              85                   90                   95  
Val Cys Val Asn Pro Tyr His  
              100

<210> 112  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 112  
Gly Gly Glu Ser Glu Thr Phe Ala Lys Arg Ala Ile Glu Ser Leu Val  
1               5               10               15  
Lys Lys Leu Lys Glu Lys Lys Asp Glu Leu Asp Ser Leu Ile Thr Ala  
20              25              30  
Ile Thr Thr Asn Gly Ala His Pro Ser Lys Cys Val Thr Ile Gln Arg  
35              40              45  
Thr Leu Asp Gly Arg Leu Gln Val Ala Gly Arg Lys Gly Phe Pro His  
50              55              60  
Val Ile Tyr Ala Arg Leu Trp Arg Trp Pro Asp Leu His Lys Asn Glu  
65              70              75              80  
Leu Lys His Val Lys Tyr Cys Gln Tyr Ala Phe Asp Leu Lys Cys Asp  
85              90              95  
Ser Val Cys Val Asn Pro Tyr His  
              100

<210> 113  
<211> 205  
<212> PRT  
<213> Caenorhabditis elegans

<400> 113  
Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys Lys Cys Ser  
1               5               10               15  
Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser Glu Asn Arg  
20              25              30  
Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val Ala Phe  
35              40              45  
Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr Lys Lys  
50              55              60  
Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val Phe Val  
65              70              75              80  
Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys Asp Lys  
85              90              95  
Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe Gly Phe Asn  
100             105             110  
Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys Gln Met Ala  
115             120             125  
Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr Ile Tyr Glu  
130             135             140  
Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg Thr Thr Asp  
145             150             155             160  
Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly Phe  
165             170             175  
Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys Pro Val Trp

180                    185                    190  
Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp  
195                    200                    205

<210> 114  
<211> 212  
<212> PRT  
<213> Homo sapiens

<400> 114  
Ile Ala Tyr Phe Glu Met Asp Val Gln Val Gly Glu Thr Phe Lys Val  
1                    5                    10                    15  
Pro Ser Ser Cys Pro Ile Val Thr Val Asp Gly Tyr Val Asp Pro Ser  
20                    25                    30  
Gly Gly Asp Arg Phe Cys Leu Gly Gln Leu Ser Asn Val His Arg Thr  
35                    40                    45  
Glu Ala Ile Glu Arg Ala Arg Leu His Ile Gly Lys Gly Val Gln Leu  
50                    55                    60  
Glu Cys Lys Gly Glu Gly Asp Val Trp Val Arg Cys Leu Ser Asp His  
65                    70                    75                    80  
Ala Val Phe Val Gln Ser Tyr Tyr Leu Asp Arg Glu Ala Gly Arg Ala  
85                    90                    95  
Pro Gly Asp Ala Val His Lys Ile Tyr Pro Ser Ala Tyr Ile Lys Val  
100                    105                    110  
Phe Asp Leu Arg Gln Cys His Arg Gln Met Gln Gln Ala Ala Thr  
115                    120                    125  
Ala Gln Ala Ala Ala Ala Gln Ala Ala Ala Val Ala Gly Asn Ile  
130                    135                    140  
Pro Gly Pro Gly Ser Val Gly Gly Ile Ala Pro Ala Ile Ser Leu Ser  
145                    150                    155                    160  
Ala Ala Ala Gly Ile Gly Val Asp Asp Leu Arg Arg Leu Cys Ile Leu  
165                    170                    175  
Arg Met Ser Phe Val Lys Gly Trp Gly Pro Asp Tyr Pro Arg Gln Ser  
180                    185                    190  
Ile Lys Glu Thr Pro Cys Trp Ile Glu Ile His Leu His Arg Ala Leu  
195                    200                    205  
Gln Leu Leu Asp  
210